

SIBIS – Workpackage 4: eEurope Evaluation and Benchmarking Report 2001

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ANNEX

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1. Methodology for key eEurope Actions Evaluation

The Evaluation of key eEurope Actions implementation in EU countries was carried out by SIBIS consortium. Data collection was based on the qualitative Questionnaire developed by Databank and approved by the partners (reported in D 4.1 – Methodology for Key eEurope Actions Evaluation - available in ANNEX I).

The countries allocation to SIBIS partners was organised according to the following scheme:

Partner	Countries covered
Empirica	Germany Austria
Work Research Centre	Ireland
Danish Technology Institute	Denmark Sweden Finland
Technopolis	United Kingdom France
Databank Consulting	Italy Greece Spain Portugal
RAND Europe	Netherlands Belgium Luxembourg

The SIBIS survey was based on desk as well as field research. The partners reviewed the main document sources for each country and carried out several telephone and face-to-face interviews to experts to compile answers. Data collection was started by the partners the 1st June 2001 and was completed the 30th September 2001. The complete list of contacts and documentary sources by country is available in ANNEX II.

DBC co-ordinated the whole SIBIS WP4 survey. In particular, DBC briefed partners on the output expected and the guidelines to follow when collecting data. Once gathered all the countries' questionnaires, DBC carefully checked their contents, validated their consistency and - where necessary - requested additional information to the partners. DBC also checked international sources of information (i.e. Eurobarometer surveys) and included them in the report where appropriate.

The national questionnaires answers were qualitative, so they were consolidated according to the following methodology:

- synthetic answers were consolidated in tables (listing for example yes/no answers by country concerning the existence of a policy measure);
- descriptions of policy measures and initiatives were harmonised and collected in listings by countries in alphabetical order;
- general comments summarising the status of the action at the EU level were elaborated for each action and each action area.

Further elaboration was carried out for the Policy Progress Evaluation tables (see par. 4). Finally, DBC submitted to the partners for feedback and approval the draft version of the report.

2. Selection criteria of the eEurope actions evaluated

The analysis has been focussed on the eEurope actions considered the most relevant within the whole eEurope action plan.

The selection criteria applied to select the eEurope actions, may be synthesised as follows:

- **Representativeness for each subject area**

It was necessary, as far as possible, to give an exhaustive overview of the state of the art Information Society in each member state. All the eEurope actions are very specific and target oriented; therefore the selection tried to guarantee a balance between the 11 Areas these actions have been organised by the Commission.

Even if some application areas the actions listed by the Commission may partly overlap, a particular effort was devoted to guarantee that all the topics are sufficiently investigated and covered by the SIBIS evaluation.

- **Suitability to capture relevant data within every country**

The primary goal of the eEurope evaluation is to benchmark the results achieved within each member state; therefore have been considered only those actions whose implementation is conditioned by every single country policy, economic and regulatory measures. Therefore, where not considered those actions whose unique actors are the European Bodies and that do not require a fundamental contribution from public as well as private actors in the member states.

- **Suitability to benchmarking**

When the quality of information collected was qualitative, it was structured in a way to make it comparable among member states, as far as possible.

- **Synergy with the general framework of the SIBIS project**

Since in the SIBIS project has a key aspect in the WP3 survey (and in particular a DMS – decision makers survey), it was necessary to make WP4 effort as efficient as possible. While expecting interesting results from DMS, it was decided to handle research within WP4 basically desk – starting from national eEurope reports - and making use of interviews only in those cases where data requested were not available in a country or, when only an interview may help researchers to have a clear overview on a specific issue.

The balance between direct – or phone – interviews will be decided by the partners according to the quantity and quality of information they will be able to retrieve within their country.

All of these selection criteria have taken to the definition of the following list of eEurope actions, evaluated by SIBIS.

1 - CHEAPER AND FASTER INTERNET ACCESS		
	Action	
1.3	<i>Work towards introducing greater competition in local access networks and unbundling of the local loop.</i>	Evaluated
1.6	<i>Where necessary and without distorting competition, public financing instruments will give increased priority to supporting the development of information infrastructure and projects, notably in the less-favoured regions.</i>	Evaluated

2 - FASTER INTERNET FOR RESEARCHERS AND STUDENTS		
	Action	
2.1	<i>Adequate funds (in addition to the 80m Euros already allocated to the upgrade of the trans-European backbone interconnecting the National Research and Education Networks) will be earmarked for the research networking aspects of the IST Programme, with the objective of establishing Europe as a global connectivity leader and initiating the evolution towards a fully optical backbone with improved capacities in terms of bandwidth and services.</i>	Evaluated
2.2	<i>National research Networks should be upgraded to ensure that researchers and students across Europe benefit from powerful networks, for example, using structural funds and EIB support.</i>	Evaluated

3 - SECURE NETWORKS AND SMART CARDS		
	Action	
3.1	<i>Improve the overall security of on-line transactions by: 2) Supporting the industry-led security certifications through co-ordination of efforts and mutual recognition, including information security professional certification.</i>	Evaluated
3.3	<i>Develop a co-ordinated European approach to cybercrime.</i>	Evaluated
3.6	<i>Availability of cost-effective smart card solutions to enable secure electronic transactions.</i>	Evaluated

4 - EUROPEAN YOUTH INTO THE DIGITAL AGE		
	Action	
4.1	<i>Provide all schools, teachers, and students with convenient access to the Internet and multimedia resources, where appropriate using the Structural Funds.</i>	Evaluated
4.3	<i>Ensure availability of support services and educational resources on the Internet, as well as e-learning platforms, for teachers, pupils and parents (e.g. access for disadvantaged children, access to digitised cultural heritage, multilingual multimedia learning materials, European open source software initiative, collective of best practice). European Commission to support these efforts via the education, training and culture programmes and to provide adequate funding within the IST Programme.</i>	Evaluated
4.4	<i>Provide training, using Structural Funds where appropriate, to all teachers, in particular adapt teacher curricula and offer incentives to teachers to actually use digital technologies in teaching. European Commission will ensure exchange of best practice and co-ordinate research efforts through its education, training, and IST Programmes.</i>	Evaluated
4.6	<i>Ensure that all pupils have the possibility to be digitally literate by the time they leave school. European Commission to support pilot projects, exchange of best practice and co-ordinate research efforts, via its IST and education programmes.</i>	Evaluated

5 - WORKING IN THE KNOWLEDGE-BASED ECONOMY		
	Action	
5.1	<i>Give the labour force the chance to become digitally literate through life-long learning.</i>	Evaluated
5.2	<i>Significantly increase information technology training places and courses and promote gender equality in such courses (both in work and in educational institutions), using European Social funds where appropriate.</i>	Evaluated
5.3	<i>Establish a European diploma for basic information technology skills, with decentralised certification procedures.</i>	Evaluated
5.4	<i>Support greater flexibility in the workplace, e.g. teleworking and part-time working, where appropriate through agreements by Social Partners and backed up by Member States.</i>	Evaluated
5.6	<i>Set up public Internet access points in public spaces and establish multimedia tele-centres in all communities providing access to training and e-work facilities, where appropriate using the Structural Funds.</i>	Evaluated

6 - PARTICIPATION FOR ALL IN THE KNOWLEDGE-BASED ECONOMY		
	Action	
6.1	<i>Policies to avoid info-exclusion will be more effectively co-ordinated at European level through benchmarking of performance and exchange of best practice between Member States.</i>	Evaluated
6.4	<i>Adoption of the Web Accessibility Initiative (WAI) guidelines for public websites.</i>	Evaluated

7 - ACCELERATING E-COMMERCE		
	Action	
7.2	<i>Boost consumer confidence in e-commerce in partnership with consumer groups, industry and Member States. Promote alternative dispute resolution, trust marks and effective codes of conduct by working with stakeholders to develop general principles and by creating appropriate incentives. An "online e-confidence forum" managed by the Commission will engage as many stakeholders as possible in this process. Commission and Member States to further develop EEJ-net (European Extra-Judicial Network) linking alternative dispute resolution systems and launch pilot projects at European level through the IST programme.</i>	Evaluated
7.3	<i>Commission to stimulate increased flexibility in e-commerce regulation by building more on co and self-regulation, inter alia through co-operation with relevant business groups such as the Global Business Dialogue.</i>	Evaluated
7.5	<i>Encourage SMEs to "Go Digital" through co-ordinated networking activities for the exchange of knowledge on, best practices, e-commerce readiness and benchmarking. "Reference centres" could help SMEs to introduce e-commerce into their business strategies.</i>	Evaluated
7.8	<i>Establish electronic marketplaces for public procurement.</i>	Evaluated

8 - GOVERNMENT ONLINE: ELECTRONIC ACCESS TO PUBLIC SERVICES		
	Action	
8.1	<i>Essential public data online including legal, administrative cultural, environmental and traffic information.</i>	Evaluated
8.2	<i>Member States to ensure generalised electronic access to main basic public services.</i>	Evaluated
8.7	<i>Promote the use of electronic signatures within the public sector.</i>	Evaluated

9 - HEALTH ONLINE		
	Action	
9.1	<i>Ensure that primary and secondary healthcare providers have health telematics infrastructure in place including regional networks.</i>	Evaluated

10 - EUROPEAN DIGITAL CONTENT FOR GLOBAL NETWORKS		
	Action	
10.1	<i>Launch a programme to stimulate the development and use of European digital content on the global networks and to promote the linguistic diversity in the information society, including action to support exploitation of public sector information and establish European digital collections of key datasets.</i>	Evaluated

3. Structure of national reports

Every partners has been asked to provide – for the EU countries they were responsible for – a national report.

Every national report contains the following elements:

- 1) country context, containing the following elements:
 - political awareness and sensibility to eEurope in the country;
 - national context for the implementation of eEurope within public structure;
 - main policies in support of the development of ICT networks and high-speed infrastructure within the country;
 - commitment of the country in the introductions of e-Healthcare, e-Education and e-Government and, more in general, in the speeding up of technological innovation in traditionally public services;
 - capability of the country to create a political climate able to stimulate the diffusion of e-commerce;
- 2) the completed questionnaire;
- 3) bibliography, list of sources and a list of the contacts contacted for the compilation of the questionnaire.

4. Policy Progress Achievement Indicators

The questionnaire included a Policy Progress Evaluation question for a number of actions, where partners were asked to evaluate the level of policy initiatives underway in the country, according to the following scale. These evaluations were based on whether or not policy measures existed in the country and at which level of implementation; this approach limits the scope of subjective uncertainty in the answer, even if the evaluations ultimately were decisions of the SIBIS partners based on their research on the matter.

Policy progress evaluation scale

- ? = no explicit activities identified
- = activities planned, but not yet started
- = activities launched, but no progress yet visible / measurable
- = activities launched and underway with some measurable progress already achieved
- = mission fully completed, i.e. objective has been realised and is documented

The resulting tables were checked by DBC for consistency at the national level with the corresponding answers describing policy measures, and also to ensure homogeneity of criteria of evaluation across the different countries. More specifically:

- the existence of general laws including as a specific goal the issue addressed in the question was considered equivalent to the existence of specific laws targeted to the issue;
- the existence of measurable progress was considered proven by documentary sources or expert interviews in the country as documented in the report.

When completeness or reliability of the tables were not considered acceptable they were eliminated from the final elaboration. In conclusion, tables were elaborated for 14 actions.

The Policy Progress Evaluation tables therefore represent, in the opinion of the consortium, a reasonably objective indicator of the level of activity in policy-making for the issues investigated by the report.

A further step was required to allow comparison and synthesis of results. The policy progress evaluation answers were assigned a numerical value in order to transform them in scores, according to the following table.

Policy Progress Evaluation correspondence to Scores

Evaluation	Answer	Score
No explicit activities identified	?	0
Activities planned, but not yet started	●	1
Activities launched, but no progress yet visible/measurable	●●	2
Activities launched and underway with some measurable progress already achieved	●●●	3
Mission fully completed, i.e. objective has been realised and is documented	<input checked="" type="checkbox"/>	4

The numerical scores by country and by action could therefore be calculated simply adding up the different scores. The scores by action were also added by area (Faster Internet, Investing in People and Skills and Stimulate the Internet).

In order to provide an indicator of achievement, the scores were compared to the maximum possible score computed as follows:

- 4 (maximum score) multiplied by 15 countries = 60 (maximum possible score for all EU for each action)
- 4 (maximum score) multiplied by the number of actions evaluated in the macroarea = maximum possible score by country for the macroarea

Therefore the scale of achievement indicators can be interpreted as follows:

100% = mission fully completed

75% = activities launched and underway with some measurable progress achieved

50% = activities launched, but no progress yet visible/measurable

25% = activities planned, not yet started

0% = no explicit activities identified

An example of the elaboration of the achievement indicator for the first area (Faster Internet) is shown in the following table.

Example of Policy Progress Achievement Indicator

Country	Implementation of LLU	Laws against Cybercrime	Dev. of infrastructures in LFR	Total Score	Max possible score	% achieved
Germany	4	3	4	11	12	92%
Sweden	3	3	3	9	12	75%
UK	3	3	3	9	12	75%
Portugal	3	2	3	8	12	67%
Netherlands	3	4	1	8	12	67%
Austria	3	2	2	7	12	58%
Denmark	3	1	3	7	12	58%
Ireland	3	2	2	7	12	58%
Spain	2	3	2	7	12	58%
Finland	3	2	1	6	12	50%
France	2	1	3	6	12	50%
Greece	2	2	2	6	12	50%
Italy	2	3	1	6	12	50%
Luxembourg	2	3	0	5	12	42%
Belgium	3	1	0	4	12	33%
Total	41	35	30	106	180	59%
Max possible score	60	60	60	180		
% achieved	68%	58%	50%	59%		
Average EU	2.7	2.3	2	7		

5. Key eEurope Actions Evaluation: questionnaire

Cheaper and faster Internet Access

Action 1.3

Please tick the corresponding box in the following table concerning the status of the implementation of the unbundling of the local loop in your country.

Question 1.1

When has the law (regulation) introducing the unbundling of the local loop been approved?

- Before/in 2000
- In 2001
- Still to be approved

Question 1.2

When will "unbundling of the local loop" be mandatory in your country?

- Before/in 2000
- In 2001
- Still to be approved

According to policy progress evaluation scheme, please mark the appropriate box, referring to this action

?	●	●●	●●●	<input checked="" type="checkbox"/>
---	---	----	-----	-------------------------------------

Policy progress evaluation

- | | |
|-------------------------------------|---|
| ? | = no explicit activities identified |
| ● | = activities planned, but not yet started |
| ●● | = activities launched, but no progress yet visible/measurable |
| ●●● | = activities launched and underway with some measurable progress already achieved |
| <input checked="" type="checkbox"/> | = mission fully completed, i.e. objective has been realised and is documented |

Question 2

How many insurgent telephony operators – excluding incumbent operator - have launched "unbundled" fixed phone services directly to end users?

	On a national level	On a local level*
up to/in 2000		
in 2001		

(*) are here intended as "local" operators those whose commercial offer is limited to one (or more) regions or municipalities.

Comments:

Action 1.6

Question 3.1

Is there in your country a *national* "umbrella" programme or action plan for supporting "the development of information infrastructure in less favoured regions"¹?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

Question 3.2

If yes, please fill in the following table

- Title of action plan _____
- Date of approval _____
- Scope (national, regional, local) _____
- Key relevant objectives _____
- Timing _____
- Funding (to be indicated in EURO) _____

Question 3.3

Are there *regional* programmes/action plans for supporting "the development of information infrastructure in less favoured regions"?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

Question 3.4

If yes, please name some relevant examples.

Question 4.1

Have national specific R&D investment plans been approved for supporting "the development of information infrastructure in less favoured regions" in your country?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

¹ Excluding research networks (see following question)

Question 4.2

If yes, please fill in the following abstract for the above indicated law/regulatory framework/investment plan

• Title of the law (or investment plan) _____
• Date of approval _____
• Scope (national, regional, local) _____
• Key relevant objectives _____
• Timing _____
• Funding (to be indicated in EURO) _____

"Disadvantaged area" will be all those ones considered as such by the policy measure defining devolving the funding.

Will be excluded all the initiatives entirely promoted and supported by private companies (namely ICT equipment suppliers).

Will be included the funding aimed at support:

- ICT infrastructures (i.e.: ICT equipment for schools, students and disadvantaged regions);
- education and ICT training initiatives (ICT courses addressed to unemployed, elderly etc).

According to policy progress evaluation scheme under indicated, please mark the appropriate box:

<input type="checkbox"/> ?	<input type="checkbox"/> ●	<input type="checkbox"/> ●●	<input type="checkbox"/> ●●●	<input checked="" type="checkbox"/>
----------------------------	----------------------------	-----------------------------	------------------------------	-------------------------------------

Policy progress evaluation	
?	= no explicit activities identified
●	= activities planned, but not yet started
●●	= activities launched, but no progress yet visible / measurable
●●●	= activities launched and underway with some measurable progress already achieved
<input checked="" type="checkbox"/>	= mission fully completed, i.e. objective has been realised and is documented

Comments:

Faster Internet for Researchers and Students

Action 2.1

Question 5

Does your National Research Network have a fully optical backbone?

- Yes
- No
- planned for (please specify): _____

Action 2.2

Question 6.1

Please fill in the following table.

	Before/in 2000	In 2001	planned for ...
What is the <i>general</i> bandwidth currently available in your National Research Network (specify Mbits or Gbits)? *			
What is the <i>maximum</i> bandwidth currently available in your National Research Network (specify Mbits or Gbits)? *			

* in case more than one NREN have been set up in your country, please indicate their names and split data referred to each of the networks

Question 6.2

	Before/in 2000	In 2001	planned for ...
Does your NREN apply IPv6 protocol?			

Question 6.3

	Before/in 2000	In 2001	planned for ...
How many Universities* are in 2001 connected to your NREN at the maximum bandwidth (in percentage)?			

* please specify what is here intended as "university"

Secure Networks and Smart Cards

Action 3.1 (part. 2)

Question 7.1

Is there in your country an industry led security certification activity?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

Question 7.2

If yes, when was it set up?

- Before/in 2000
- In 2001

Action 3.3

Question 8.1

Is there in your country a national law/regulation for the safeguard against cybercrime?

- Yes, approved before/during 2000
- Yes, approved during 2001
- Under discussion/planned for (please specify)
- Not yet approved

Question 8.2

If yes, please fill in the following table for the above mentioned law/regulation

Title of the law (regulatory framework) _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing _____
Funding (to be indicated in EURO) – if applicable _____

For replying to this question, you should consider "Privacy enhancing technologies" any form of illegal activity of intrusions and other behaviour such as: privacy offences, content-related offences, economic crimes, unauthorised access and sabotage, intellectual property offences.

According to the policy progress evaluation scheme under indicated, please mark the appropriate box.

?	●	●●	●●●	<input checked="" type="checkbox"/>
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Policy progress evaluation

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Comments:

Action 3.6

Question 9.1

Are smart card solutions² available for the following application areas?

Please mark the application areas where you're sure that smart card solutions have been applied.

	Yes	No	Data not available
Public Administration and other public services cards			
Electronic ID cards			
Tax payment			
School enrolment			
Healthcare services			
Prescriptions of healthcare services: prescriptions, medical visits, etc.			
Storage of personal medical data			
Other			
Credit cards			
Electronic wallet			
Shop cards and customer rewards schemes			
Public transport services			
Public utilities supply payment			
Digital TV			
Other			

² With exclusion of SIM used in mobile telephony

Question 9.2

Can you describe a potentially relevant/successful project on smart cards implementation in your country?

- Yes
- No

If yes, please fill in the following table

Name of the project _____
Timing: starting date, conclusion date _____
Scope (national, regional, local) _____
Key relevant objectives _____
Funding (to be indicated in EURO) - if applicable _____
Private or public bodies supporting the initiative _____

According to policy the progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
---	---	----	-----	-------------------------------------

Policy progress evaluation	
?	= no explicit activities identified
●	= activities planned, but not yet started
●●	= activities launched, but no progress yet visible/measurable
●●●	= activities launched and underway with some measurable progress already achieved
<input checked="" type="checkbox"/>	= mission fully completed, i.e. objective has been realised and is documented

Comments:

European youth into the digital age

Action 4.1

Question 10

Please fill in the following table using Eurobarometer data

	2000	2001
Number of computers available at primary schools		
Number of computers available at secondary schools		
Number of Internet connections available at primary schools		
Number of Internet connections available at secondary schools		
Total number of primary schools in your country		
Total number of secondary schools in your country		

Question 11.1

Is there in your country a *national* "umbrella" programme or action plan "to provide schools, teachers and students with convenient access to the Internet and multimedia resources"?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

Question 11.2

If yes, please fill in the following table.

Name of the action/investment plan _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001-2002 Planned for.....) _____
Funding (to be indicated in EURO) _____

Question 11.3

Are there *regional* programmes/action plans "to provide schools, teachers and students with convenient access to the Internet and multimedia resources"?

- Yes
- No
- Only partially
- Under discussion/planned for (please specify): _____

Question 11.4

If yes, please name some relevant examples.

According to policy the progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
---	---	----	-----	-------------------------------------

Policy progress evaluation

- ? = no explicit activities identified
- = activities planned, but not yet started
- = activities launched, but no progress yet visible/measurable
- = activities launched and underway with some measurable progress already achieved
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Comments:

Action 4.3

Question 12

	In 2001
How many primary schools have got a website?	
How many secondary schools have got a website?	

Action 4.4

Question 13.1

Is there a *national* umbrella action plan or initiative aimed at supporting and "offering incentives to teachers to use digital technologies in teaching"?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 13.2

If yes, please fill in the following table referring to the above mentioned programme

Name of the action/investment plan _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 – Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

Question 13.3

Are there *regional* action plans aimed at supporting and "offering incentives to teachers to use digital technologies in teaching"?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 13.4

If yes, please name some relevant examples.

According to policy the progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
---	---	----	-----	-------------------------------------

Policy progress evaluation

- ? = no explicit activities identified
- = activities planned, but not yet started
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- = activities launched and underway with some measurable progress already achieved
- = mission fully completed, i.e. objective has been realised and is documented

Comments:

Action 4. 6

Question 14.1

Are there in your country examples of potentially relevant/successful projects aimed at ensuring that "all pupils have the possibility to be digitally literate by the time they leave school"?

- Yes
- No

Question 14.2

If yes, please fill in the following table

Name of the project _____
Timing: starting date, conclusion date _____
Scope (national, regional, local) _____
Key relevant objectives _____
Funding (to be indicated in EURO) – if applicable _____
Private or public bodies supporting the initiative _____

Comments:

Working in the knowledge-based economy

Action 5.1

Question 15.1

Is there a *national* regulation/law supporting digital literacy of labour force through lifelong learning in your country?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

Question 15.2

For the above mentioned law/regulation, please fill in the following table

Title of law/regulation act _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Does the action plan foresee incentives or tax exemptions for companies providing ICT training/retraining of their employees? _____
Timing (from 2001 – Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

According to the policy progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
---	---	----	-----	-------------------------------------

Policy progress evaluation

- ? = no explicit activities identified
- = activities planned, but not yet started
- = activities launched, but no progress yet visible/measurable
- = activities launched and underway with some measurable progress already achieved
- = mission fully completed, i.e. objective has been realised and is documented

Comments:

Action 5.2

Question 16.1

Is there a *national umbrella* action plan or initiative supporting "the increase of information technology training places and courses" for workers in your country?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 16.2

If yes, please fill in the following table.

Name of the action _____
Date of approval _____
Target: unemployed, disabled and elderly _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 - Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

Question 16.3

Are there *regional* action plans aimed supporting "the increase of information technology training places and courses" for workers?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 16.4

If yes, please name some relevant examples.

According to the policy progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
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Policy progress evaluation

- ? = no explicit activities identified
- = activities planned, but not yet started
- = activities launched, but no progress yet visible / measurable
- = activities launched and underway with some measurable progress already achieved
- = mission fully completed, i.e. objective has been realised and is documented

Comments:

Action 5.3

Question 17.1

Has the European Computer Driving Licence been implemented in your state?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

Question 17.2

If yes, please specify when it was implemented

- Up to/in 2000
- in 2001

Comments:

Question 18

If ECDL has been implemented, how many ECDL have been released in your country?

Action 5.4

Question 19.1

Are there policies (action plans, programmes) supporting telework in your country?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 19.2

If yes, please fill in the following table.

Name of the action plan _____
Date of approval _____
Target: unemployed, disabled and elderly _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 - Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

According to the policy progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
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Policy progress evaluation

- ? = no explicit activities identified
- = activities planned, but not yet started
- = activities launched, but no progress yet visible/measurable
- = activities launched and underway with some measurable progress already achieved
- = mission fully completed, i.e. objective has been realised and is documented

Comments:

Action 5.6

Question 20.1

	Public PIAPS	Private PIAPS	Data not available
How many Public Internet Access Points are there in your country?			

Question 20.2

If data are not available, please describe status

Question 21.1

Can you describe a potentially relevant/successful project on implementation of public internet access points in your country?

- Yes
- No

Question 21.2

If yes, please fill in the following table

Name of the project _____
Timing: starting date, conclusion date _____
Scope (national, regional, local) _____
Key relevant objectives _____
Funding (to be indicated in EURO) - if applicable _____
Private or public bodies supporting the initiative _____

Comments:

Participation for all in the knowledge-based economy

Action 6.1

Question 22.1

Are there any *umbrella* action plans/initiatives undertaken in your country in order to avoid physically and mentally disabled "info-exclusion" on a national level?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 22.2

If yes, please fill in the following table referring to the above mentioned initiative.

Name of the action/ investment plan _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 - Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

Question 22.3

Are there *regional* action plans undertaken in your country in order to avoid physically and mentally disabled "info-exclusion"?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 22.4

If yes, please name some relevant examples.

Comments:

Action 6.4

Question 23.1

Has the WAI – Web Accessibility Initiative already been implemented in your country?

- Yes
- No
- Partially

Question 23.2

If yes, when was it implemented?

- Up to/in 2000
- In 2001

According to the policy progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
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Policy progress evaluation

- ? = no explicit activities identified
- = activities planned, but not yet started
- = activities launched, but no progress yet visible/measurable
- = activities launched and underway with some measurable progress already achieved
- = mission fully completed, i.e. objective has been realised and is documented

Comments:

Accelerating e-commerce

Action 7.2

Question 24.1

It there a code of conduct in your country, regulating e-commerce transactions?

- Yes
- No
- Under discussion
- Data not available

Question 24.2

If there is one, which stakeholders have subscribed this code of conduct?

- Industry associations
- Consumer associations
- Retailers
- Internet Services Providers
- Others

Question 25.1

If yes, does this code of conduct foresee alternative dispute resolution procedures?

- Yes
- No
- Data not available

Question 25.2

If yes, please fill in the following table for the above mentioned document.

Name of the document (code of conduct) _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Private or public body supporting the initiative _____

According to the policy progress evaluation scheme under indicated, please mark the appropriate box

?	●	●●	●●●	<input checked="" type="checkbox"/>
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Policy progress evaluation

- ? = no explicit activities identified
- = activities planned, but not yet started
- = activities launched, but no progress yet visible/measurable
- = activities launched and underway with some measurable progress already achieved
- = mission fully completed, i.e. objective has been realised and is documented

Comments:

Action 7.3

Question 26.1

Is there in your country an industry led consortium/association to promote e-commerce self regulation?

- Yes
- No

Comments:

Action 7.5

Question 27.1

Is there a national *umbrella* action plan/programme to support SMEs to "go digital" in your country?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 27.2

If yes, please fill in the following table for the above mentioned measure.

Name of the action/investment plan _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 – Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

Question 27.3

Are there regional action plans/programmes to support SMEs to "go digital"?

- Yes
- No
- Partially
- Under discussion/ planned for (please specify): _____

Question 27.4

If yes, please name some relevant examples.

Comments:

Action 7.8

Question 28.1

Is there a regulation/national programme supporting the creation of electronic marketplaces for public procurement in your country?

- Yes
- No
- Partially
- Under discussion/planned for (please specify): _____

Question 28.2

If yes, please fill in the following table for the above mentioned initiative.

Name of the law/ regulation _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 – Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

Question 28.3

If not, please indicate status.

Action 8.7

Question 31.1

Is there a law/regulation in your country for the implementation of electronic signature?

- Yes
- No
- Under discussion

Question 31.2

If yes, when was the electronic signature implemented in your country?

- Up to/in 2000
- In 2001
- Planned for (please specify): _____

Question 31.3

For each of the above mentioned documents, please fill in the following table

Name of the law _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 - Planned for.....) _____
Funding (to be indicated in EURO) devoted to implementation of electronic signature, if applicable _____

Comments:

Health online

Action 9. 1

Question 32.1

(use Eurobarometer data)

	2000	2001
How many in % of total hospitals in your country are connected to the Internet?		
How many in % of total medical doctors have an access to the Internet in your country?		

Question 32.2

If these data are not be available, please briefly indicate what are the main objectives for the diffusion of telematics networks for healthcare in your country.

Question 32.3

If there is a specific measure for telematics network in healthcare, please fill in the following table for the above mentioned measure.

Name of the action/ investment plan _____
Date of approval _____
Scope (national, regional, local) _____
Key relevant objectives _____
Timing (from 2001 - Planned for.....) _____
Funding (to be indicated in EURO) devoted in support of training courses _____

Comments:

European digital content for global networks

Action 10.1

Question 33.1

Are there national and/or regional programmes or strategies to "support exploitation of public sector information"?

- Yes
- No
- Only partially
- Under discussion/ planned for (please specify): _____

Question 33.2

If yes, which specific data sets of public sector information do these programmes focus on?

Question 34

How would you describe your country's allocation of Structural Funds/EU Social Funds with respect to the eEurope goals ?

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7. Annex III – Country Contexts

7.1. Austria

Political awareness to information society issues and eEurope in Austria

The first policy definition of an Austrian way toward the information society dates back to December 1996, when the Federal Government published the report "**Austria in the Information Society**" (<http://www.bka.gv.at/bka/service/publikationen/infoges.pdf>). The White Book style document summarises the results of working groups that had been set up the year before in order to discuss information society challenges and opportunities for Austria. The logical next step would have been an Action Plan based on the report, but there was none, and official information society policies practically came to a standstill until the European Commission launched eEurope in 1999.

With the emergence of eEurope³, and in the wake of the subsequent Action Plan, the Austrian Federal Government has actively committed itself to acknowledge and implement the eEurope actions from the beginning, and eEurope objectives are explicitly addressed on the federal level. eEurope does not play an important role, though, in the regional policies of the Bundeslaender and in private initiatives, although activities outside the Federal Government certainly contribute to eEurope objectives implicitly.

The national context for the implementation of eEurope in Austria

In a fast response to the eEurope initiative and the commitment of Member States at the Lisbon European Council in March 2000, the Austrian Federal Government published the report "**eAustria in eEurope**" in April 2000. This short document (19 pages) was an important preparatory measure for the implementation of the eEurope 2002 Action Plan in Austria. The main purpose of "eAustria in eEurope" was to take stock of already existing initiatives (mainly on the federal level) in Austria that are relevant for eEurope objectives. The report documents in bullet points i) measures already implemented in Austria and ii) activities and ICT projects planned until 2003. Information is given for the following thematic areas: education, public administration, economy, tourism, new information technologies for rural areas, social issues, justice, arts and media, technology and research, finance, national defence, internal affairs, foreign affairs and cultural heritage. This first record of "what was already there" was the basis for planning how to implement the Action Plan adopted at the Feira European Council in June 2000.

Responsibility for the implementation of the eEurope 2002 Action Plan on the federal level is distributed among several federal ministries and departments, depending on the topic and issues. To some extent, the **Federal Chancellery** has taken the role of a co-ordinator and central info-point, monitoring progress in each of the actions by delivering a **monthly updated report** on the implementation of eEurope actions in Austria. These reports are submitted to the European Council and the Commission. The first "catalogue" of activities was prepared in September 2000. Beginning with October 2000, the monthly updates have been made public. The latest version can be downloaded from the information society section at the Federal Chancellery's website (<http://www.bka.gv.at/bka/informationsgesellschaft>).

The responsibility for planning and carrying out activities remains with the different ministries and departments. There is no designated eEurope office, task force or manager in Austria. The **Austrian federal ministries** mainly involved in eEurope and their respective responsibilities are:

³ The European Commission launched eEurope in December 1999. Member States committed themselves to a number of measures, including target dates, at the Lisbon European Council in March 2000.

- the Ministry of Education, Science and Culture (faster Internet for researchers and students, European youth into the digital age, European digital content),
- the Ministry of Transport, Innovation and Technology (cheaper and faster Internet access, transport),
- the Ministry of Economic Affairs and Labour (working in the knowledge based economy, accelerating e-commerce, European digital content),
- the Federal Ministry of Public Services and Sports (government online),
- the Ministry of Justice (consumer protection),
- the Ministry of Finance (finance online),
- the Ministry of Social Security and Generations (participation for all, health online),
- and the Federal Chancellery (data security, media, public procurement).

Commitment to introduce e-healthcare, e-education and e-government

The main focus areas of eEurope-related public initiatives in Austria are e-learning, e-government and e-business. For each of these areas, a catalogue of goals and actions has been defined by the responsible ministry.

e-learning

In order to implement the educational objectives of eEurope, the **Federal Ministry of Education, Science and Culture** (BMBWK) launched the "eFit Austria" Initiative (www.bmuk.gv.at/pneu/efit.htm#eAus) in June 2001. eFit bundles ongoing and new projects in the areas of eLearning, eTraining, eCulture and eScience. The initiative has defined eight focus areas: Teaching with new media, IT education, education portals on the Internet and electronic resources for education, science and research, IT further training, cyber cultural, e-government in education, IT infrastructure.

There is a wide variety of projects going on in each of these areas. The main objectives of these projects and initiatives launched under the umbrella of e-learning are

- improving the network infrastructure in schools, i.e. to implement broadband access between 2 and 10 Mbit/s and to decrease access costs for broadband access,
- adapting curricula in a way to meet technological requirements and to have more school-leavers with special IT skills,
- establishing new media as a focus in teacher training and to provide continuous training to teachers with the target that all teachers can use the Internet by 2002,
- launching special measures for training women in IT jobs,
- launching new schools and programmes at university level with a technology focus.

eFit Austria is a shared cost initiative. The direct contribution of the Ministry of Education, Science and Culture is about 15 million Euro in 2001, 22 million Euro are budgeted for 2002, and 36 million Euro for 2003. This is about 50% of the total cost of the initiative. The other 50% have to be raised by the participating institutions and organisations, by the municipalities or by the Laender.

e-business

In the second half of year 2000, The **Federal Ministry of Economic Affairs and Labour** (BMWA) set up seven working groups to develop strategies how to encourage "e-business in a knowledge based economy" in Austria. The working groups dealt with the following topics: e-location, e-business, e-employment and skills, e-start up and capital, e-content, e-tourism, e-innovation. The

task for each working group was to submit suggestions for five concrete measures to be taken. The final report describing the measures proposed by the working groups is available at the e-business section of the Ministry's website (<http://www.bmwa.gv.at/ebusiness/index.htm>). Using financial means of the ERP-Fund, the Ministry has implemented an action line for "e-business" within its technology programme in July 2001.

e-government

Within the "IT co-ordination in the Federal Government", the **Federal Ministry of Public Service and Sports** (BMÖLS) has set up a special "Task Force e-Austria" (<http://www.bmols.gv.at/it-koo/start2.htm>). The objectives of the task force are to advance the usage of ICT in government and public administration and to co-ordinate the activities launched to implement the eEurope actions.

The task force builds on earlier initiatives, such as the IT Initiative of the federal administration launched in 1998, and on a study on the status quo of e-government and on future opportunities for Austria conducted in 1999 (<http://www.bmols.gv.at/it-koo/e-gov/e-gov.pdf>).

Significant projects involving the IT Co-ordination of the Federal Government include www.help.gv.at (a one-stop service portal to public administration online services for citizens and businesses), the development of a "citizen card" (a multifunctional smart-card, e.g. for social security information), the promotion of the ECDL (European Computer Driving Licence) for employees in the public sector, and CyberDOC (<http://www.cyberdoc.at>), a virtual archive for documents and certificates which is set up in co-operation with the Austrian Association of Notaries.

Participation for all

The **Federal Ministry for Social Security and Generations** (BMSG) has launched an employment initiative for people with disabilities, including measures for better access to ICT and ICT-training. More than 70 million Euro are budgeted for this initiative (www.behinderung.bmsg.gv.at).

Main policies in support of the development of ICT networks and high-speed infrastructure in Austria

Austria has a quite advanced telecommunications infrastructure. The turning point when conditions started to improve significantly came with the liberalisation of the markets at the beginning of 1998. Prior to this milestone, Austria used to be one of the countries with the highest prices for telecommunication services in Europe, and with a quite sluggish PTO that did not show much inclination toward innovation. Challenged with aggressive competition, especially in the mobile market, and increasingly in the fixed network markets, the situation has improved within a very short time. Today, in each part of the country, business and private customers have access to the telephone network and ISDN.

About 37.5% of the households are connected to a cable TV network, and 41.8% are satellite households (private dish or shared satellite dish). The larger and some of the smaller cable TV networks have started to offer Internet access, for instance in the Vienna area. The main competitor for fast Internet access is ADSL technology, which will be available for almost all households (> 90%) by the end of 2001. Jet2Web, the Internet subsidiary of Telekom Austria, offers ADSL at a download rate of 512 Kbit/s. In fact, according to Eurobarometer data, Austria is the European leader in ADSL diffusion with 3.5% of households connected (http://europa.eu.int/information_society/europe/benchmarking/list/2000/cheaper_faster/ad

[sl/adsl.gif](#)). Due to unbundling regulation, other providers could also offer ADSL renting the TA infrastructure; however, competition in the last mile has not yet reached a significant level.

Since the development and upgrading of telecommunication networks, after liberalisation in 1998, is to a large extent left to market forces, there are no direct public policies to support the development of high-speed networks. Important indirect policies of recent years include efforts to create a favourable legal framework for fair competition, and investments in upgrading the (non-commercial) national research network (ACOnet) and in the development of the ASN Austrian School Net. Since 1989, about 75 million Euro have been invested in the development of this network infrastructure for education and research.⁴ In 2001, ACOnet plans a major upgrade of the network from currently 2x64 Mbps to 1 Gbps maximum bandwidth in the full optical fibre backbone. All universities and colleges will be connection to ACOnet.

Regulatory framework: In 1997, the Telekom-Control GmbH was established under the Austrian Telecommunications Act (TKG 97) as the regulatory body for the Austrian telecommunications market. After three and a half years, Telekom-Control GmbH formally ceased to exist on March 31, 2001 in accordance with the new KommAustria Act (KOG). The unit is now part of the new "Austrian Regulatory Authority for Telecommunications and Broadcasting" (RTR GmbH), which was established under § 1 of the same Act. RTR will also serve as the operating arm of the new regulatory authority for broadcasting, also known as the Austrian Communications Authority ("KommAustria"). Thus, telecommunications and broadcasting are now regulated by the same authority, but by different units.

Looking at the telecommunication market structure in Austria, it seems likely that there will be high competition between operators offering x-DSL and cable-TV networks as the main providers of broadband access to households and companies. If other network providers (e.g. satellite operators, electricity supply companies) will also successfully enter this market remains unclear.

Mobile communications: The liberalisation of telecom markets has led to a boom in mobile communications in Austria beyond any expectation. With a diffusion rate of more than 50 subscribers per 100 inhabitants, Austria ranks among the leading countries in Europe.⁵ Four operators have been granted licences either in the GSM 900 and/or DCS 1 800 frequency range since 1996: Mobilkom (the off-spring of the incumbent PTO, market share: 43%), max.mobil (in 1996, 35%), Connect Austria / One (in 1998, 19%), and tele-ring (in 2000, 3%). The upgrading of the mobile networks lies within the responsibility of the operators. Six companies have been granted UMTS licences on 20 November 2000 by way of auctioning. The market launch of UMTS services is expected for 2002.

Fixed networks: As of July 2001, 66 licences for voice telephony and 69 for leased lines have been issued by the regulator. Although regulations for unbundling the local loop are in place since 1998, there has been only little demand from operators' side up to now in offering unbundled services to customers.

Innovation and research policies

The **research quota** in Austria is low compared to other highly developed countries. The Statement of Government Intent issued by the conservative government coalition in 2000 envisages an increase in the research quota from 1.8% of GDP (1999) to 2.0% by 2002 and 2.5% by 2005. As a first step, the Government has announced to make available an additional 500 million Euro during the

⁴ Austrian Federal Chancellery: eEurope 2002 – implementation of actions in Austria. 30 June 2001, p.12.

⁵ See: OECD Communications Outlook 2001, p. 71.

next three years, over and above the regular budget, for Research and Technology. This sum is destined primarily for measures exercising strong leverage towards encouraging an increase in research and technology investments on the part of industry. It is intended that this should go some way towards bringing the relationship between public and private research and technology expenditure into line with the EU average.

An important part of recent national innovation strategies has been the establishment of **Centres of Excellence** since 1998. In the "K plus" (Large-scale Centres of Excellence focusing on basic research) Programme, the total research budget for the 12 centres hitherto installed amounts to 145 million Euro (2 billion ATS), with the financing being undertaken in a public-private partnership model. About 170 enterprises participate currently in the K plus Centres (www.bmv.gv.at/etech/kplus.htm). In the "K ind" (Industrial Excellence Centres) Programme, centres are financed for applied research in co-operation with industry partners.

In 1999, the **FTW** – Forschungszentrum Telekommunikation Wien (Vienna Research Centre for Telecommunication) (www.ftw.at) was founded. The new research centre is funded (in part) within the K plus Programme (see above). FTW is organised as a partnership of the Technical University of Vienna, large telecom companies based in Vienna, a few innovative SMEs, the Research Centre Seibersdorf and the FEEI – Austrian Association of the Electro-technical and Electronics Industry.

Activities to stimulate the diffusion of e-commerce in Austria

Practical support for businesses regarding e-commerce know-how is mainly provided by the Austrian Economic Chamber and its organisations. The chamber has launched two **eBusiness portals**, one for general information (<http://wko.at/ebusiness>), offering a variety of information and support services for businesses, and another one with special services for industrial e-business (www.ebusiness.or.at). One of the initiatives is to promote a quality trademark for Austrian e-commerce services in co-operation with consumer protection organisations.

In order to implement the EU Directive on e-commerce and to create a clear legal framework for e-commerce services in Austria, the Government intends to pass an **E-Commerce Act** (ECG). The draft of the ECG is currently (July 2001) under debate. The Act shall be passed in parliament in autumn 2001, so that it can become effective in January 2002. If the Act is approved, it will contain regulations for the following issues (cf. www.bmj.gv.at/presse/ecommerce.html): information obligations for electronic commerce providers, regulations for contracts concluded online, definition of the liability of Internet access providers and host providers (for instance in which cases they are held liable for links on their website, e.g. in case the link leads to other websites with illegal content), guidelines for international e-commerce.

In 2000, a consortium including all major stakeholders (e.g. chamber of commerce, consumer protection association, association of Internet service providers) agreed to introduce the **Austrian E-Commerce Quality Label**. The label confirms the voluntary undertaking of companies to comply with a set of criteria and quality features in processing electronic business and other electronic transactions with consumers in the sense of the consumer protection legislation. The main objectives of this Quality Label are

- making it possible in the future to recognise serious online shops at first glance,
- strengthening confidence in e-commerce,

- developing and establish mechanisms to solve disputes rapidly and unbureaucratically through an out-of-court arbitration body.

The criteria for award of the Quality Label are oriented in particular on the requirements of Austrian law (e.g. Section 5a ff. Konsumentenschutzgesetz ["Consumer Protection Act"], Allgemeines Bürgerliches Gesetzbuch ["Civil Code"], on EU legislation (e.g. Remote Sales Directive, Directive on Electronic Business Transactions) and on international guidelines (e.g. OECD Guidelines for Consumer Protection in the Context of Electronic Commerce). The applicant must, clearly and unmistakably, incorporate into his contractual conditions certain obligations laid down in a set of specific guidelines.

On the regional level, numerous awareness activities and information days have been organised over the past few years. A number of support programmes for SMEs include e-commerce components, e.g. partial funding for initial external consulting on IT implementation strategies.

7.2. Belgium

Political structure and competences

In addition to the municipalities, the Belgian political structure comprises three levels:

- the federal state
- three regions: Flanders, Brussels, Wallonia
- three communities: Flemish, French, German

Each of these entities has a parliament, a government and an administration, with the exception of the Flanders region and the Flemish community which share these institutions.

Main political competences are distributed principally as follows:

- federal level: justice, home office, foreign affairs, finances, defence, communications & infrastructure
- regional level: economy, equipment & transport, employment, environment
- community level: education & scientific research, culture, arts, social affairs & health

For each domain of competence, the municipalities are dependent on the corresponding level.

Some indicators of ICT take-up status

- Each of the three regions (Flanders, Wallonia and Brussels) has an optical fibre backbone network in place.
- The number of Internet connections in Belgium, after having boomed from 300,000 to 1,350,000 between March 1999 and March 2000, reached 2,800,000 in March 2001 (i.e. 28 % of the total population).
- ADSL deployment started mid 2000, and is now covering over 80 % of the country.

Political awareness and sensitivity to eEurope

On November 17th, 2000, the federal government issued a 'declaration' entitled **Information Society and e-gov**. Below is a translation of the introduction to the declaration.

The Federal Government intends to launch a number of initiatives aimed at bringing Belgium a major step further into the Information Society. This evolution entails major changes, not only in the economical, but also in the social and cultural domains.

The public authorities have an important role to play. They must optimise the environmental conditions by implementing the right framework for the Information Society to develop. They must supplement market deficiencies. They must act themselves as exemplars. Therefore an innovative electronic platform will be put in place, allowing electronic communication between all citizens and the authorities. Belgium wants to be a leader in that area. Special attention will be required, to eliminate the digital divide and guarantee an Information Society for all.

A global Belgian action plan is proposed, based on five pillars:

- electronic public authorities
- access and skills
- infrastructure and security
- knowledge and innovation
- legislation

The full text of the declaration can be found on the web site of the Ministry of Communications (TelcoBel) at <http://www.telcobel.be>

Following is a brief analysis of the contents of each of the 'pillars' with respect to eEurope's objectives.

Electronic public authorities

This pillar addresses primarily eEurope's objective 3.b. Government online - electronic access to public services. The plan provides for the creation of a unique electronic platform linking together all levels of authority – federal, regions and communities – as well as municipalities and citizens. Implementation will be integrated within the Copernic modernisation plan of the federal administration (see <http://www.copernic-us.be/copernic>).

The text emphasises also the role of public authorities in reducing the digital divide (objective 2.c. Participation for all in the knowledge-based economy) and prescribes in particular that

- Active assistance is offered to the citizen in the use of the digital channel.
- Traditional communication channels are temporarily maintained in parallel.
- Text mode access is available.

Access and skills

The focus here is on objective **2.c. Participation for all in the knowledge-based economy**.

Specific provisions:

- The authorities must take 'technologically neutral' measures, to guarantee access for all.
- Various communication channels must be used: PC, fixed and mobile telephone, public access points (kiosks).
- Federal authorities will pay special attention to ease of use, for the benefit of impaired, elderly and less educated persons.

- The authorities will stimulate the private sector to put in place access facilitating procedures. Fiscal incentives will be studied.
- Telecommunication cost must not be an obstacle to access.
- ICT skills acquisition: the federal authorities will launch awareness campaigns targeting both the citizens and the enterprises.
- The federal authorities encourage the Communities and the Regions to support initiatives in the areas of ICT training and lifelong learning.

The last two points have also a relationship with eEurope's objective 2.b. Working in the knowledge-based economy.

Infrastructure and security

The government's objective is to maintain the Belgian telecommunication infrastructure among the best in Europe. The federal authorities must act as a facilitator and stimulate innovation.

Specific measures to be taken in order to accelerate broadband services take-up:

- The market will be further liberalised.
- Public authorities will invest 'massively' in the expansion of Belnet (broadband network covering the entire national territory and linking all scientific research establishments).
- Broadband services prices must be affordable.
- New technologies such as UMTS must be deployed quickly.

Public authorities have an important active role to play concerning data and network infrastructure security (e.g. private life protection). Actions will be taken in the areas of encryption and information protection.

This pillar thus addresses - at least partially - all eEurope's objectives in cluster 1. A cheaper, faster, secure Internet.

Knowledge and innovation

In this pillar, the federal government insists on the opportunity to better exploit the great amount of knowledge that is present in Belgium.

The text is broad and general in nature. Information Society aspects considered here are:

- The possibility for the federal authority to publish on Internet the wealth of scientific information available (re eEurope's objective **3.d. European digital content for global networks**). The Belnet network is seen as the vehicle, connected to other research networks.
- The need to increase the number of ICT specialists.
- The influence of the Information Society on employment.

Legislation

From the legislation point of view, there are two aspects to the Information Society:

- The communication infrastructure.

- The contents of communications.

At the infrastructure level, Belgian legislation will evolve towards European convergence, and this pillar makes explicit reference to the European "1999 Communications Review" paper.

As far as contents is concerned, existing laws are applicable to online activities (e.g. laws on advertising, child pornography). New legislation is required in specific areas and, at this point in time, the legislator has addressed already:

- The electronic signature.
- Cybercrime.

The main eEurope's objective concerned here is 1.c. secure networks and smart cards.

Conclusions

The "Information Society and e-gov" declaration from the federal government is an umbrella plan. It places the emphasis on communication infrastructure needs, the digital divide problem and e-government applications.

The declaration does not go into details in areas such as education (for the youth and for the workers), e-commerce, e-health and less favoured regions.

These areas indeed are

- either of low concern to Belgium (although there are ex-industrial areas still in the reconversion process, they are not less favoured regions in terms of information infrastructure – such as some European peripheral regions are),
- or to be managed by other levels of authority (the Regions for commerce, the Communities for education) or the private sector.

The SIBIS Questionnaire for Belgium gives complementary information, in particular about regional and private-sector achievements or plans in relation with eEurope.

7.3. Denmark

Political awareness and sensibility to eEurope in the country

Denmark is very engaged in the work with the issues from eEurope. Public authorities on different levels and areas have been working hard with transforming Denmark to the information society. When the eEurope Action plan was decided on, Denmark had already fulfilled many of the aims or was in the process of doing so and this in some sense made eEurope issues irrelevant for Denmark. Therefore, the role of the eEurope Action plan has mostly been used for further inspiration and has not had major significant impact. Or in other words, most of the technological innovation has been derived from private and other public initiatives. This does not mean that Denmark is not committed to make more progress on the different issues in the eEurope Action plan and make an effort on aims that has not been achieved yet.

Denmark has an explicit strategy to do better on the technological front. The strategy started some time ago and is receiving more and more attention. One of the main statements in the new-year speech held by the Prime Minister in 2001 was that Denmark is to be the leading IT-nation in the world and this statement joined many forces in a common mission.

National context for the implementation of eEurope within public structure

The Ministry of Information Technology and Research monitors the eEurope action plan, but this specific action plan does not have top priority. No overall structure or organisation exists for the purpose of monitoring and co-ordinating specific eEurope initiatives.

On the other hand many Ministries, local authorities, organisation and so forth are working with the issues described in the plan.

Main policies in support of the development of ICT networks and high-speed infrastructure within the country

The aim of the government is that Denmark must be the worlds leading IT-nation. One of the important means to reach this goal is a very good ICT infrastructure in the shape of a fast, cheap and safe Internet to everybody in Denmark. Since July 1998 telecom enterprises have had access to Tele Denmark's (now TDC) local subscriber network. The government is more or less letting the improvement of the infrastructure depend on the market forces, but they paid a lot of attention to the development - especially in the less favoured regions. In the autumn 1999 they made a political tele-decision that create more competition, more options and lower prices to the Danish consumers.

This development is continuing. In July the Government decided on an action plan to increase the competition even more. The purpose of this regulation is to establish a sector specific code of practice to create transparency; objectiveness and non-discrimination foundation for the tele-operators access to limited frequency-resources and establishment of infrastructure in the shape of masts and cables.

In general the Danish Tele-policy rest on following principles:

- Cheap Tele-services and Internet access of high quality.
- Liberty of choice between alternative technologies.
- Healthy competition via several accesses roads/ net.

(Source: Isenkram til Indhold, p. 8)

The Governments policy seems to work. In 2000 approximately 50% of the population (between 16 and 74) had access to the Internet from home and 65% (72 % in 2001) from home, work or the education institution. Today most of the population has the opportunity to get a high-speed Internet. TDC states that 95% of the fixed phone subscriptions in mid 2002 have the possibility to get ADSL with at least 256kbps (Source: Isenkram til Indhold, p.12). The will to investment in (tele)-infrastructure exists in Denmark even though the demands for broad band demanding traffic are still limited.

The public authorities are not only focused on the technology. Consequently, they focus on creating better content and in this way increase the demands for high-speed infrastructure. It should be an incentive for the internet-suppliers to get fast Internet to everybody. Thus, the government is not only interested in how to make high-speed Internet accessible throughout the country, but also put energy in creating content.

The Government expects to use at least 0,2 mia. Euro on different IT-related expense in 2001 and 0,45 mia. from 2001-2004. The money will be spend on:

- Prepare strategies on particular important areas
- Improve the infrastructure
- Reduce the barriers for further spreading and use
- Digital services and create content on the Internet (using ICT for public administration).

Commitment of the country in the introductions of e-Healthcare, e-Education and e-Government and, more in general, in the speeding up of technological innovation in traditionally public services

E-healthcare is relatively high on the political agenda in Denmark. In the summer 1999 the Minister for Health introduced a national strategy for the hospital service 2000-2002. The goal is to fulfil the need for a bigger focus on the patients via the use of IT and more co-ordination of the IT-activities. Besides that the goal is put the priority of the IT-activities and resources in order and get a more long-term planning of the IT-effort on the hospitals. A part of the strategy is the implementation of electronic patient records to ease communication between the many parties in the healthcare sector. (Source: Satsninger og tal, p. 89)

E-education (*and e-learning*) is a hot issue in the Danish political debate and Denmark has launched a number of interesting projects, because it realised that the development of the education system is an important foundation for the Information Society. The initiatives reach from the lowest to the highest level in the education system. The government is very focused on the primary schools and the municipalities have agreed to double the IT-investment. For example they have to make sure, that there is a new computer available for every 10th pupil in public schools. A majority in the Folketinget (the Danish Parliament) has also agreed to spend approximately 48 mio. EURO on IT and media in the primary school. The money creates a possibility for the last 25% of the primary schools to be connected to the Sector-net (shared with the secondary and further and higher education).

Another project is the virtual university. It is a goal to offer qualifying further and higher education via flexible internet-based distance education.

Learning lab Denmark is a new research and development unit. The aim of this unit is to promote the Danish business' and education-institution's opportunity to use new learning methods. Though experiments they create partnerships to develop new methods for learning and competence development.

These projects are just some of the steps taken in Denmark to introduce e-Education.

E-government is also a hot issue in Denmark and it's not only about the technology, it's indeed about effective ways of benefiting from it.

The Ministry of Taxation, Central Customs and Tax Administration was one of the first institutions to offer electronic self-services to make it easier for the citizens and employers. This service is quickly spreading to other public institutions. By the end of 2002 it is planned, that it should be possible to get and return all important forms to and from public administrative authorities. Many are already available (see www.NetBorger.dk). This is a part of a process to make service activity and information easy to access for citizen and companies. "danmark.dk" is another similar activity. This portal contains information about and from the public administration. It makes it easier to find law texts, addresses, public websites etc. The many civic web-sites in Denmark are used to make the public administration more transparent. For example, it is possible for all citizens to download letters, publications, action plans etc. Many other public institutions have electronic services. For example the liberties, culture activities and outdoor activities.

Many Danish consumers have a lack of trust to the electronic security. The Danish government is in the process of preparing the way for an electronic signature. This signature should make the communication between the public and citizen and companies easier and more secure. 67% of the Danes are insecure giving personal information on the Internet (Source: Satsning og tal, p. 70).

The government has made an electronic market place for the public institutions. They plan to put it in use in January 2002. The goal is to become a driving force for e-commerce in Denmark. And at the same time ensure more effective use of the public finances.

Capability of the country to create a political climate able to stimulate the diffusion of e-commerce

The government is focused on promoting e-commerce in Denmark. As mentioned earlier they are in the process of making the framework for an electronic signature. Like with person information 67% of the population is insecure paying on-line. In this way the electronic signature becomes vital for the e-commerce.

Likewise the Ministry of Business and Industry has launched several initiatives intended to boost user confidence in e-commerce and Denmark already has a well functioning system - the Consumer Complaints Board. They deal with specific disputes between consumers and business operators, and Denmark has the Consumers' Ombudsman, who negotiates guidelines etc. with business and consumer organisations.

There are also initiatives concerning SMEs going digital. First of all it's a part of the Government's business strategy "dk21". Other initiatives are:

- Establishment of an IT Science Park with the aim of promoting co-operation between industry and scientific institutions.
- E-House Denmark is developing methods and instruments for e-commerce and functions as a meeting place for Danish and foreign e-businesses.
- The establishment of Centre for Applied IT (CAIT) with focus on SMEs.
- IT Light Tower is a larger experiment in Northern Jutland with the aim of testing technological possibilities involving both the private and public sector. In November 2000, 45 projects received financial support.
- Barometer for IT Skills in an ongoing survey on the supply and demand for IT skills.
- Electronic Marking Arrangement will increase the confidence in the use of the Internet.

Any other issues regarding eEurope

Denmark has many good qualifications to become an IT-nation, but until now, the results have to some extent been absent. In the future Denmark will continue the work towards improve the above-described goals even if the eEurope action plan did not exist. The issues are incorporated in many areas on many levels and there is no doubt the work will continue even when the eEurope action plan is fulfilled.

7.4. Finland

Political awareness and sensibility to eEurope

Finland is very aware of the eEurope initiative and has, over the latest year, implemented its own examination of how the eEurope initiative is followed. This assessment is made by the Ministry of Transport and Communication, which has the most ongoing initiatives that borders to the eEurope program. Four different documents and reports have, according to the Finnish examination of eEurope, formed the basis of the Finnish information society policy, and these give an image of the Finnish awareness of eEurope:

- Finland into an information society
- Quality of life, knowledge and competitiveness: Premises and objectives for strategic development of the Finnish information society
- Government programme for information society
- Finland as an information society

There is an absence of a visible leader in these issues, and there is clearly an unclear distribution of liabilities between different departments and ministries. This leads clearly to diverging goals and some inefficiencies in the use of resources, even though there is no lack of ambition and initiative in the political structure. This is a typical problem in these kind of cross authority issues of ICT.

Technological innovation in Finland is spurred mostly by private initiatives where Nokia, as the country's dominating IT company, dominates in technological innovation in IT. But the need for specialised competence in the private sectors has raised educational initiatives at universities and other higher educational (especially technical) institutes with both public and private funding.

The in general very high IT standard in terms of usage, infrastructure and competence in Finland makes some of the e-Europe issues irrelevant for the development of ICT within Finland.

National context for the implementation of eEurope

The public office responsible for most of the questions regarding eEurope is the Communications department in the Ministry for Transport and communication. This department has the overall responsibility of Networks and Telecom, Media and E-commerce and security. In addition to this there exist task forces or departments in several other departments including Healthcare department and Education department, which both have IT initiatives along the eEurope initiative. No overall structure or organisation exists for the purpose of monitoring and project coordinating

all eEurope initiatives. However, a project which has evaluated the eEurope development, has taken place and been managed by the Ministry of Transport and Communication during 2001. This project has recommended the creation of a jointly agreed eFinland action programme coordinated by a new coordination party. Such a potentially coordinating function can for instance be created from the current Information Society Government Advisory Board, which contains members from the public organisations and large Finnish companies, such as Nokia and TietoEnator. This advisory board is headed by the Minister of Transport and Communication, and has currently no project managing or coordinating function. The officially responsible Finnish actor for coordinating the IST project is Tekes, the National Technological Agency, but this organisation is more of a research institute than executing structure. Nevertheless, the Finnish government has allocated plenty of funds to Tekes for promoting R&D projects for IT, and Tekes is the single most important organisation for developing many of the issues associated with e-Europe.

Main policies of the development of ICT networks and high-speed infrastructure

At the end of 1999, about one third of all Finns had access to the Net, either from the home, the work or from an educational establishment, according to the report "Finland as an information society". In the same report it is concluded that home usage of the Net is still minor but rapidly growing, which leads to a demand and build up of Networks and Infrastructure. The market for Internet connection market grew from 1.2 million EURO in 1994 to 58.8 million EURO in 1998, and the major development of networks and infrastructure is made by the Internet Service Providers, where the three largest had more than 80% of private customers in 1999. These companies will still be the main drivers behind the development of IT infrastructure, where Sonera is the largest player.

The high-capacity educational network Funet has been developed with a 100% coverage of the universities and also includes links to other Scandinavian educational networks. All educational institutions will benefit from this network with very high access capacities. Otherwise, no political initiatives for the development of networks take place besides the ones taken by partly government owned companies such as e.g. Sonera.

Commitment of Finland in introduction of e-Healthcare, e-Education and e-Government

In e-Healthcare, only very small projects regarding the digitalisation of the public services has been taken place. In 2000 the most interesting project has been the local Macro Pilot project in Satakunta in Finland, regarding the development of IT infrastructure and systems to guarantee seamless information exchange in healthcare to further the care of the patient. It also includes the usage of computerised customer cards for efficient service. This is a pilot project which will be running to 2003. In addition to this project, during 2001, the government has budgeted for 20 Million FIM (3.3 million EURO) to further the usage of computer technology for healthcare. This will be used for IT between municipalities and development of services models for elderly and handicapped.

In e-Education, Finland has launched a number of interesting projects, which are adjacent to the eEurope goals. This development started with the Information Society Programme between 1995 and 1999 by the Ministry of Education, which earmarked funds of 168 million Euro to furthering e-Education. The majority of this money was used for equipment and network purchases at various educational institutions, universities, libraries, archives and museums. A new information society programme is currently running between 2000 and 2004. The ambitious goal is that Finland by

2004 should be among the top countries in the world as a knowledge-based society, with network-based education and research. A programme will be launched aimed at giving all citizens communication technology skills and media literacy skills. Finland is dedicated at educating new staff with pedagogical skills and information technology skills to make this happen.

In e-Government, the council of State accepted a Policy Decision in 1998, regarding electronic communication. Since then the aim has been to improve the availability, quality and customer-orientation of the services of the public administration. This policy led to an Act of Electronic Service which came into force in the beginning of 2000. This act furthered electronic communication and electronic signatures in administration issues. An electronic identity card has been introduced which is used in dealings between the citizen and the public administration. In Finland there is also an initiative for introducing electronic collection of financial statements for taxation purposes, which should be introduced in 2002. Almost all the different ministries have launched e-Government initiatives to further communication with the citizen.

Capability of the country to stimulate the diffusion of e-commerce

Finland is very aware of the potential of e-commerce and the Ministry of Transport and Communication has launched several programmes to stimulate this development. This efforts covers two basic areas, regulation and R&D activities.

In the regulation area the ministry has three programmes which are:

- Promoting the use of new technologies
- Increasing the trust of users
- Regulation of physical distribution channels

The goal is to create a tangible promotion of e-commerce within the country. In addition to the regulating efforts three main R&D projects take place:

NetMate

- Improving the prerequisites of digital service production
- Usability of the services of the Information society

These projects focus on e-commerce in SMEs, promotion of service production and examination of customer readiness, respectively.

The development of a public procurement marketplace will soon be launched, but already the most public procurements are made in standardised formats and available online.

In addition to this a number of smaller support projects have been created to work in conjunction with the above mentioned projects. According to the Ministry's own evaluation of eEurope readiness of Finland, little tangible progress has been made regarding e-Commerce, but the awareness of the issue is clearly present in Finland.

Other issues regarding eEurope

Finland is a relatively unique country in Europe, which has had a tremendous growth in the 1990's albeit from a very low level following the collapse of the Soviet Union, one of Finland's largest trade partners in the 1980's. Much of Finnish success in the 1990's can be related to the phenomenal

success of Nokia Corporation, which has grown from a relatively small company in the beginning of the 1990's to one of the most valuable companies in the world at the beginning of year 2000. Nokia is deeply immersed in business opportunities in Information Technology, specialising in mobile phones and mobile technology. Finns in general are very technology-friendly and the development of Nokia has to an even larger degree increased tech-awareness among the general citizen. It has naturally affected politics and government initiatives and a general consensus regarding the importance of issues close to the e-Europe initiative exists. Good examples of typical eEurope initiatives in Finland are the many regional projects to enhance the possibilities of non-urban areas with ICT.

Finland is likely to continue working towards the majority of the e-Europe goals even if the e-Europe initiative didn't exist. Finland is also likely to be one of the most eager backers of a development towards e-services in Europe.

7.5. France

The French government and its commitment to eEurope

In August 1997, the French Government set the agenda for France's entry into the information society where the Minister affirmed the 'necessary presence of the State to aid the development of new technologies and services'. Although this was prior to the introduction of the eEurope initiative, France's Action plan included many of the aspects prioritised by eEurope.

In January 1998 the French Government approved PAGSI (Programme d'Actions Gouvernemental pour la Société d'Information), set up for the promotion of the Information Society. The programme has a budget of around 880 million Euro and stresses sector by sector the issues and priorities for France in the Information Society.

The action programme was meant as a starting point for all government departments so that they could set their own detailed agendas. The government also set up an inter-ministerial committee for the information society (CISI) to monitor implementation of the proposed actions, the Prime Minister also launched a supporting action plan in 1998 which focused on the following areas and contained 210 actions:

- Education - to create an on-line education network to provide access to a wide range of education resources.
- Culture - to digitalise French heritage through the creation of a multimedia programmes, virtual museums and library resources.
- R&D - to meet the challenge of technological and industrial innovation to promote research.
- E-Commerce - to boost companies' (especially SME's) competitiveness in promoting electronic exchanges between administrations & the private sector in particular for public procurement and all types of application forms. Also to establish a legal basis for the use of electronic signatures as well as new systems for secure electronic payments.

- e-government - to develop new Internet-based electronic services which are citizen-focused and user-friendly. There is also a commitment that all forms are to be made available on Internet for downloading at the end of 2000 (with some forms capable of being completed on-line).

A technology culture had already existed in French society with citizens and businesses having used Minitel for over a decade at that time. Internet take-up as a consequence in France was initially modest but has increased significantly over the past 3 years.

An appraisal of the action programme in 2000 showed a satisfying level of activity. Most of the 218 measures of PAGSI had already been implemented and people, businesses and administrations are rapidly adopting ICTs.

In terms of meeting the challenges of industrial and technological innovation, in France the policy set out by the PAGSI action programme was to create an environment which is favourable for research and innovation without being prescriptive.

During the French Presidency of the European Union in 2000, France demonstrated its continued commitment by taking forward the eEurope agenda. The French Presidency held discussions with the Telecommunications Council on the new regulatory regime for communications service and in December 2000 France organised an international seminar on the legal aspects of the information society. This included the legal framework for electronic commerce, public freedoms and the protection of personal data, intellectual property rights, the regulatory framework for telecommunications and content regulation.

Support of the development of ICT Networks and High-Speed Infrastructure

In January 1997, the Office of the Secretary of State for industry set up ART (Autorité de régulation de télécommunications) and ANF (Agence Nationale des fréquences) who were mainly responsible for regulation and moving forward the development of high speed infrastructure in France

Access to France Telecom's local loop is one of the key factors to opening the local market to competition and to the creation of high-speed Internet access offers, in particular via xDSL technologies.

The decree dated 12 September 2000 regarding access to the local loop defines the measures relative to unbundling, within the framework of French legislation. It stipulates that as of 1st January 2001, "operators in the list established in accordance with paragraph 7 of article L.36-7 are required to meet requests for access to the local loop".

The implementation of unbundling is complex. For it to be applied under the best possible conditions, ART has created a working group responsible for determining the technical, operational and economic conditions of unbundling. This group has been meeting on a regular basis since February 2000 and initial trials were begun in July 2000.

Its work has brought to light the complexity of the project. In particular, on the technical and operational level, discussions and experiments have made it possible to define the services related to unbundling and the processes needed to implement them. The lessons learned have been collected in the documents produced by the working group. On a number of crucial points, the

⁶ www.internet.gouv.fr

⁷ www.legifrance.fr

participants asked that ART guide the implementation of these measures through recommendations.

These recommendations describe the local loop access services:

the provision of information:

- colocation
- full unbundling of the local loop
- the transmission offer allowing the connection of colocated equipment to the networks of operators requesting access.

The provision of information on the local loop network is essential if unbundling is to work; it must allow operators to schedule network deployment and to order access to subscriber lines. The decree states that France Telecom must provide certain information by 1st October 2001. Within this framework, ART recommends that France Telecom provide to operators without delay a list of the addresses of the distribution frames, the size of the sites and the computer cards describing the coverage zones.

To allow operators to evaluate the possibility of offering xDSL services to customers, France Telecom must provide detailed technical information on the lines concerned without the operator having to have previously ordered unbundling of the line.

After a broad consultation with consumers and operator associations, the Autorité de régulation des télécommunications is moving ahead and adopted a decision on 18th July 2001 aimed at defining the implementation conditions and deadlines for allowing subscribers to select a telephone operator of choice for local phone calls. Also on the 9 July 2001 the CIADT (Comité interministériel d'aménagement et de développement du territoire) met and the government announced a series of measures which will guarantee access to all at the local level. The plan includes the measure to give access to all to high speed infrastructure by 2005⁸.

Introduction of eHealthcare, eEducation and eGovernment

eHealth

France has a Mission for the Computerisation of the Health Care System (Mission pour l'informatisation du système de santé)⁹ which was set up to coordinate the numerous technical projects being undertaken under the above 6 themes. This mission is under the care of the Ministry of Employment and Solidarity, the Secretary of State for Health and the 'L'action sociale' of M. Noel Renaudin.

The Mission in eHealth is centred around 6 themes:

The computerisation of surgeries

- The Sesam-Vital programme
- The digitisation of the health network
- Transformation of medical economy
- ICT revolution
- Involvement of patients in their own health

Examples of some of the advances includes:

⁸ <http://www.internet.gouv.fr/francais/index.html> – Meeting CIADT at Limoges 9 July 2001

⁹ <http://www.sante.gouv.fr/hm/pointsur/sis/textes/35.htm>

- Electronic Medical Records. Information concerning the patient is being held on GPs computers – this allow the GP to be alerted to appointments and check-ups.
- Decision making tools. Health care professional now have access to online decision making tool for helping diagnoses.
- Health care communication network - A healthcare network helps to find specialists and contact other hospitals in the network.
- The Vital 2 card holds all medical data on individuals. Allowing continuity of care and complete medical records for patients.
- The Health Care Network combined with the 'Carte professionnel de Sante' (CPS) means that information can be urgently transmitted between hospitals, clinics and other services.
- France is forging ahead with the modernisation of the health care. MTIC¹⁰ (Mission interministérielle de soutien technique pour le développement de technologies d'information et de la communication dans l'administration) also has a certain number of recommendations to back up the government's commitment to eHealth.

eEducation

France has devoted a large amount of resources to eEducation over the last three years, generally with a two-fold objectives:

- equipping future citizens with the expertise necessary to use these new communications tools, which will be essential to them,
- using the wide variety of multimedia tools to modernise teaching methods.

Currently (2001), over 90% of schools are connected and equipped mainly due to the support fund of 76,000,000 Euro¹¹. Also the adoption of an emergency plan for teacher training is speeding up the know how of teachers in ICTs.

The ministry of education has also implemented three educational sites:

- EDUCNET (www.educnet.gouv.fr) – The site on ICT in Education
- EDUCASOURCE (www.educasource.gouv.fr) – Electronic resources for education
- EDUCLIC (www.educliv.gouv.fr) – Portal site for education professionals.

The rate of school connections in among the highest in Europe and in February 2000 the Ministry of National Education and France Telecom established a partnership to develop the Internet in Schools. The first application of this agreement resulted in a programme of training for teachers on new technologies called 'Internet Ambassadors from France Telecom in Schools'.¹²

To ensure collaboration between teaching establishments, local authorities and the State, directors of education have implemented 3-year information technology development plans.

France is also about to establish a 'Grand Ecole de l'internet' in Marseille. It will be called the Institute for advanced Internet applications and was created on the 12th April 2001 and will accept pupils from September 2001¹³.

eGovernment

France's eGovernment strategy is the responsibility of the Commissariat Général du Plan. It ensures the overall coherence of the government and organises committees and working groups, under the direct authority of the Prime Minister. The government is highly committed to the

¹⁰ <http://www.mtic.pm.gouv.fr/>

¹¹ Public Strategies for the information Society in the EU –2001 - France

¹² <http://www.education.gouv.fr/discours/2000/internet>

¹³ <http://www.get.enst.fr/>

development of e-government and established the *Government Action Plan for the Information Society* in 1998.

France has embraced the widespread use of information technology with respect to state reform. All government departments have an online presence and all services that were available through MINITEL are now accessible via the Internet

The French government has also set up LEGIFRANCE, a website for free distribution of major French legal texts, and ADMIFRANCE, a website for free administrative public information on the internet.

The Prime Minister set the target that all administrations are to provide public access to all government services and documents by the end of 2000. In addition some ministries have set their own targets that go further. For example, the French Employment Service aims to provide an electronic job-matching service by the end of 2001 and to share electronic data with other relevant organisations by 2003. In addition, the Ministry of Social Affairs, Social Agencies and the Ministry of Finance & Industry are working together to establish portals for social and fiscal declarations and payment services by the end of 2001.

Around 1 billion Euro (6 billion French francs) was made available over 2 years to fund the Government's programme with one third of this amount set aside for the modernisation of public services.

An inter-ministerial committee has been set up headed by the Prime Minister in order to progress the e-government agenda. Each ministry is responsible for implementing agreed measures and the Ministry of Economy, Finance & Industry has a key role in financing new projects. One of the key decisions taken is outlined in their report 1999-2000: towards electronic administration which sets out a number of measures:

- Increase budgets - Each ministry has been requested to identify its main projects for "electronic administration" for the law on finance for the year 2000, which will take this priority into account. In 1999, the Government decided to more than double the fund for State reform and the inter-ministerial fund for modernisation, which was increased from FFR60M to FFR130M.
- Generalise the new tools for services to citizens and companies - accelerate use of digital forms and teleprocedures through, amongst other measures, making it mandatory for all new forms to be made available on the Internet and extending the free on-line availability of essential public data.
- Put information technology at the centre of State reform through, amongst other measures, training civil servants to be equipped in the information age (5,000 people in two years who will be able to carry out the new multimedia tasks in government departments).

The Government has, for the past few years, been establishing a public sector infrastructure upon which to deliver services to citizens and businesses. A majority of government departments have established Intranets and central government departments are linked to the Government Secure Intranet. A Local Government Intranet has been also been established and to date, around 50% coverage has been achieved.

However, since the strategic decision was made to migrate existing Minitel services to the Internet, service development and take-up by citizens has been rapid. Currently, a significant range of services are available. For citizens, this includes a key portal for administration services including information on citizen's rights and duties, everyday services such as information on road traffic, new regulations, weather forecasts, pensions and culture. For business, the filing of on-line VAT and other taxes, e-registration of companies and a portal for social declarations is now available.

In delivering electronic services, the government is committed to ensuring that services are delivered over multiple channels such as the Internet, call centres, digital TV as well as a network of kiosks. There are plans to introduce public kiosks in Post Offices. This multi-channel approach is being taken to ensure social inclusion.

Public acceptance and take-up of electronic services in France is, to some extent, not a big issue for the government, because Minitel has paved the way for new services. The main challenge facing government departments is likely to be meeting the high expectations of its customers and providing access to those who wish to use these new services.

Stimulate diffusion of eCommerce

The French State implemented numerous initiatives aimed at making companies aware of the stakes of the information society, in particular, electronic commerce and the Euro.

In May 1998, the Ministry of Economy, Finances and Industry announced 10 measures to favour the development of exchanges over the Internet some of the more important ones were

- The implementation of a security policy
- The launching of interoperable electronic payment initiatives
- The creation with the National Institute of Industrial property (INPI) of a pilot trial of commercialisation and dissemination of public data (www.inpi.fr)
- The implementation of an awareness and training campaign of SMEs about use of the Internet and electronic commerce applications
- The creation of system of dialogue about electronic commerce
- The Ministry of the Economy allowed tax to be settled via the Internet and the digitisation of 100 Ministry of Industry's forms, and the use of Smart Cards for paying for administrative services on the web.

A report by Mr Francis Lorentz was delivered and a special Mission for eCommerce established by the Ministry of Economy, Finance and Industry (http://www.finances.gouv.fr/commerce_electronique). The Electronic Mission also launched a competition 'Electrophées' to award to companies having developed eEcommerce projects.

7.6. Germany

Political awareness of information society issues and eEurope in Germany

On government level, the eEurope initiative is known in the ministries as a key EU activity aimed at speeding up Europe's way towards the information society. An activity for monitoring the eEurope initiative has been set up by the German Federal government.

The eEurope initiative itself did not (yet) prompt any further major public and/or private initiatives in Germany. Other national programmes, which started much earlier than the eEurope initiative have resulted in such initiatives already before eEurope was known of and started. Examples of such programmes are "Forum Info 2000", an initiative run by the German government under the responsibility of the Federal Ministry of Economics and Technology (BMW) and the Federal Ministry of Education and Research (BMBWF) from 1996 to 1999 or the "D21 Initiative", an initiative which is based on massive industry support under the auspices of the BMW and the

German Chancellor Gerhard Schröder. Other initiatives started in 2000 and include "Forum Informationsgesellschaft" and "Internet für alle".

"Forum Info 2000" was started in 1996 and finished in January 1999. The Forum Info 2000 offices were located in and run by empirica in Bonn. The initiative was aimed at the creation of awareness on key topics of the information society. Almost 1 000 supporting institutions (e.g. associations, social partners, industry) were organised within the forum. Ten working groups were set up in which representatives from the supporting organisations worked together to develop different types of position papers, brochures, organised workshops and conferences and employed further means to create an awareness of the information society within industry and among multipliers such as industry associations, the social partners etc., i.e. those organisations organised or at least represented by the above supporting organisations. The working groups were as follows:

- WG 1: Work in the Information Society
- WG 2: E-Commerce
- WG3: Sustainability and Environment
- WG4: Challenges of the Information Society on Education and Media Competence
- WG5: Seniors in the Information Society
- WG6: Multimedia Applications in Cities
- WG7: Telematics Applications in the Health Sector
- WG8: Art and Culture in the Information Society
- WG9: Women in the Information Society
- WG10: Security in the Information Society.

The initiative – which was not aimed at the ordinary citizens but to industry and multiplier organisations – achieved some considerable recognition among the above target groups.

"Forum Informationsgesellschaft" is the successor initiative to the "Forum Info 2000" and was started in 2000. It is part of the Federal government initiative "Internet for all" and run by the BMWi. The objective is to provide a platform for a dialogue between citizens and experts, provide best practice examples from different application areas and to finally achieve access to the Internet for those groups still excluded or disadvantaged. Similar to the "Forum Info 2000" this forum also works in working groups. Topics addressed include:

- Education
- Democracy and Public Administration
- Women in the Information Society
- Art and Culture
- Sustainability
- Seniors

"Initiative D21" is an initiative by German business with the objective to accelerate the transformation of Germany from an industrial society to an information society. This is intended to make up for Germany's current delay in comparison with other countries and to make better use of the opportunities offered by the information society with regard to competitiveness, growth and employment. Initiative D21 is a non-profit registered association, founded on July 27, 1999 in Stuttgart, Germany. The main office and management of the association are located at Ernst-Reuter-Platz 2, 10587 Berlin, Germany. The 226 participants comprise of 94 member companies, 33 sponsors, 59 supporters and 43 advisory council members. All sectors of industry - not only IC providers are represented (e.g. health insurance organisations like AOK, electricity providers like Preussag) are involved, as public institutions. The managing board of the association comprises 12 members. Chairman is Mr. Erwin Staudt, IBM. The initiative is funded by membership fees and corporate donations. The membership fee is 10 000 DM (5 000 Euro) annually. D21 wants to make a contribution to Germany's assumption of a top position in international competition in the

application and production of information technology. The transformation to the information society is to be structured according to the following individual goals:

- Politics, the economy, science and society develop optimal underlying conditions for the transformation to the information age.
- The government and its institutions set an example in the use of modern technologies.
- Education and qualification are the basic elements for life, work and real net output in the information society.
- The government and the economy promote the acceptance of technology and the new information and communication technologies.

Initiative D21 is an umbrella initiative encompassing a wide variety of single projects. It has formed 5 task forces and 15 sub-task forces. The task forces are:

- Task force 1: Administrative Framework and Widening of Internet Access
- Task force 2: The Government Leads the Way in the Use of IC Technology
- Task force 3: Education and Qualification
- Task force 4: Women and IT
- Task force 5: Business Start-up Offensive

Task forces are always led by two representatives, one from the economic sector and the other from the political sector. In the task forces, themes are discussed, agreements reached and implemented. Initiative D21 is the largest private-public partnership in Germany, it is a competitively neutral platform and is independent from parties and industrial sectors. It is planned to supplement the activities by a regional structure. Initiative D21 can be seen as the key initiative in Germany addressing the information society.

"Internet für alle" (Internet for all) is a Federal government initiative started in 2000 which includes "ten steps towards the information society" ("10 Schritte für den Weg in die Informationsgesellschaft")

1. Internet to become a good, all-round education ([Internet wird Allgemeinbildung](#))
2. Support to PC sponsoring in schools ([Förderung des PC-Sponsorings für Schulen](#))
3. Internet driving license for unemployed people ([Internetführerschein für Arbeitslose](#))
4. Strengthening competition in the local loop ([Stärkung des Wettbewerbs im Ortsnetz - weiter sinkende Preise](#))
5. Tax exemptions for private Internet use ([Steuerfreiheit für private Nutzung des Internets](#))
6. e-Government: Public services delivery via the Internet ([Staatliche Dienstleistungen über das Internet \(e-government\)](#))
7. Supporting and strengthening e-commerce ([Förderung des e-commerce](#))
8. Improving security on the Internet ([Verbesserung der Sicherheit im Internet](#))
9. Self-regulation ([Selbstregulierung](#))
10. Information campaign "Re.newing Germany" ([Informationskampagne "deutschland erneuern"](#))

National context for the implementation of eEurope in Germany

Under the responsibility of the Federal Ministry of Economics and Technology (BMW), all federal ministries have been approached and nominated a responsible staff member to act as co-ordinators and provide relevant information for monitoring the implementation of the eEurope actions in Germany to the BMW. This group of co-ordinators or task force is identical to the group responsible for updating the national action programme "Innovation and Jobs in the Information Society of the 21st Century" published by the German government under the auspices of the BMW and the Federal Ministry of Education and Research (BMBF) in September 1999. In the view of the BMW the above national action programme, which they see as a programme rather similar to the

eEurope initiative, was in place much earlier than the eEurope initiative and can therefore be seen as a precursor to the eEurope initiative. The above task force acts within the national government structures, i.e. it is not an independent entity.

The above action programme "Innovation and Jobs in the Information Society of the 21st Century" is a report (83 pages) which constitutes the key information policy document in Germany. It is a sort of White-Paper describing the strategies of the German Government "for combatting unemployment, and securing a high and sustainable level of employment" by exploiting the opportunities of the information society. The document specifies 10 "general aims" and "concrete targets up to 2005" based on these objectives. In order to reach these goals, the following "strategic fields of actions" are specified and described in detail:

1. Wider access to the new media
2. The need to promote multimedia technology in education
3. A better legal framework to strengthen confidence and security
4. Creating innovative jobs – promoting new applications
5. Taking a leading position in technology and the infrastructure
6. Advancing state modernisation
7. European and international co-operation

For each of these action fields, the document provides a rationale about the current situation and the strategic importance and states explicit actions to be taken.

The document specifies 10 "general aims" and "concrete targets up to 2005" based on these objectives. General aims include

- to increase the spread and use of modern information and communication technologies in Germany
- to ensure social inclusion
- to modernise school and vocational training systems
- to maintain and expand the high level achieved in basic research
- to increase the spread of innovative forms of work
- to achieve comprehensive use of ICTs in every area of the public sector.

The document is available in German and English:

http://www.bmwi.de/Homepage/download/english/innovation_and_jobs.pdf.

This action programme is currently being updated and will become publicly available approximately in February 2002.

Main policies in support of the development of ICT networks and high-speed infrastructure within the country

Germany has an exhaustive telecommunications infrastructure. In each part of the country business and private customers have access to the telephone network and the ISDN. In addition, Germany has a nation wide cable TV network and a very high cable TV penetration rate. The ADSL technology has started to become available, however, not yet in all areas of the country. Deutsche Telekom is currently (August 2001) approaching one million with respect to ADSL customers. Other telecommunications providers also offer ADSL. Finally, Germany disposes of a nation-wide broadband communications research network (Deutsches Forschungsnetz, DFN) through which all universities, federal ministries etc. are connected.

The last major initiative in the area of ICT network infrastructure in Germany was started and carried out by Deutsche Telekom immediately after the reunification in 1990 in the Eastern part, i.e. the new federal states. The corresponding Deutsche Telekom investments amounted to almost 30 billion Euro. There are no governmental actions and support programmes in this respect since, after the start of liberalisation of the German telecommunications sector, Deutsche Telekom acts as

one organisation and provider next to other competitors. The German telecommunications market today is – apart from the Regulatory Authority for Telecommunications and Post (Regulierungsbehörde für Telekommunikation und Post) – largely determined by competition.

Commitment to introduce e-healthcare, e-government and e-education

e-Healthcare

As part of the "Forum Info 2000" a committee for health telematics was created in order to discuss the way of health care into the information society. Representatives of various involved groups, for example dentists, physicians, industry and insurance companies, were present. The analysis and recommendations of the committee were published 1998 as volume 105 of the series of the Federal Ministry of Health. Key recommendation was the establishment of a telematic platform.

Current infrastructure actions by the government:

- Aktionsforum für Telematik im Gesundheitswesen (Action Forum for Telematics in Health Care): <http://atg.gvg-koeln.de/main/english.html>
- Aktionsforum für Gesundheitsinformationssysteme (Action Forum for Information System in Health Care): <http://www.afgis.de/>
- Further projects overview: http://www.bmwi-info2000.de/glob_invent_d/index_a.htm

The main objectives of these actions are on electronic prescribing, standardised physicians' letters, security infrastructure (including PKI and HPC), European and international affairs, electronic patients record, cost benefit assessments of telematic applications, legal issues and economic incentives, and patient information systems.

e-Government activities to speed up technological innovation in public services

"BundOnline 2005" is the eGovernment initiative of the Federal German government which started in September 2000. The aim is to provide all public services of the Federal government which lend themselves to Internet provision online by the year 2005. To support this for all Federal ministries, the Bundesamt für Sicherheit in der Informationstechnik is developing an e-Government handbook: <http://www.bsi.de/fachthem/egov/3.htm>.

A number of pilot projects are already up and running:

- BaföG online (student grant application): <http://www.bva.bund.de/aufgaben/bafog/>.
- Öffentlicher Eink@uf online (public procurement by a Federal ministry): <http://www.bescha.bund.de/egovernment/index.html>.
- Arbeitsamt Online (employment office online): Internet service offer of the Bundesanstalt für Arbeit (public employment office): <http://www.arbeitsamt.de/hst/index.html>.

In a further federal activity, by the Federal Ministry of Economics and Technology, two public authorities are currently equipped with e-procurement systems.

e-Learning

In 2000, the Federal Ministry of Education and Research has launched an e-learning programme named "New media in Education" ("Neue Medien in der Bildung") with various e-learning initiatives supporting universities, vocational training centres and schools.

Initiatives worth mentioning are:

- "Neue Medien in der Hochschule" supporting the use of innovative methods for learning and teaching at universities.
- "Schools Online" ("Schulen ans Netz") <http://www.san-ev.de>. Main objectives of this initiative, launched by the Federal Ministry of Education and Research together with the Deutsche Telekom AG, are to equip all schools with computers and Internet access and to integrate the use of the new media in everyday school work as teaching and learning material.

- "Intel-Lehren für die Zukunft" <http://www.intel-lehren.net>. This is a special programme of the "Initiative D21" (c.f. above) to support training courses for teachers (within the next two years "Intel- Lehren für die Zukunft" will offer training courses for more than 120 000 teachers in Germany including all types of school) and an effective use of technology in schools.

Activities to stimulate the diffusion of e-commerce in Germany

E-commerce related activities to create awareness and help organisations, especially SMEs, to actively implement and use e-commerce were already initiated by the Federal German Ministry of Economics in 1996, when the former Federal Minister for Economics, Günter Rexrodt, announced an E-commerce initiative at the CeBit trade exhibition. It lasted until April 1997, when first activities emerged which resulted in a ministerial conference at EU level in Bonn in 1997.

These activities were followed by further ones as part of the "Forum Info 2000" programme, namely a nation-wide competition "E-Commerce in SMEs" organised by the e-commerce working group of the Forum Info 2000 in 1997/98. Furthermore, these were followed by some specific activities relating to security in ICT networks and e-commerce ("Sicherheit im Internet").

One of the most recognised activities in the area of e-commerce includes the "E-Commerce Competence Centre Network" (Netzwerk elektronischer Geschäftsverkehr: <http://www.bmwi-netzwerk-ec.de/>) which started in 1997 and which is now going into its second phase with some moderate funding by the BMWi. Within this initiative, 24 regional competence centres were established throughout the country which are now enlarged by sector-specific competence centres. Further initiatives and programmes by the BMWi include support for e-commerce pilot projects in SMEs which started in 1999.

In 1999, the BMWi also initiated the study "Status Quo and development prospects of electronic commerce in Germany, Europe and the USA with special consideration of its use in SMEs". This study was highly appreciated up to the minister level and is currently (August 2001) being updated with results to become available towards the end of 2001. The updating activity is the BMWi contribution to an initiative started by Deutsche Telekom entitled "Internet and e-commerce for SMEs" ("Mittelstand geht online") which BMWi joined as a partner: <http://www.mittelstand-geht-online.de/>.

7.7. Greece

Political awareness and sensibility to eEurope

The overall impression from the interviews and the data collected in the Greek environment is that the Greek government attaches a particular importance to promoting the eEurope initiative in Greece.

At present, total expenditures in information and communication technologies represent nearly 4 % of GDP, below the EU average, but growing at over 16% every year. PC and Internet penetration at 15% and 5% respectively remain low but are expected to grow considerably. A fundamental precondition for success is the rapid completion of the liberalisation of the telecommunication services market. This is expected to lead to significant reductions in the average cost of telecommunication services which, for business users in particular, remain expensive, as well as to further improve the quality and range of services offered. There is also a great potential for

increased use of information and communication technologies (ICTs) in the public administration, in schools and in the workplace, which for the moment remains limited.

With the aim of promoting the IS in a coherent and integrated manner, a separate Operational Programme for the Information Society (OPIS) is proposed in the framework of the present CSF. This is an innovative horizontal programme, cutting across government departments, which aims to implement the essential features of the White Paper of the Greek government entitled « Greece in the Information Society » of February 1999.

Overall, it is proposed to mobilise in the OPIS about 2.2 billions of Euro of public funding during the next seven years. This represents a level of expenditure equivalent to that mobilised by the most ambitious regions in Northern Europe in the previous period. Even though it will be a challenge to spend such a large amount of resources well it is certain that very determined efforts are needed to close the gap between Greece and the other EU countries concerning information society applications.

National context for the implementation of eEurope within public structure

In the public sector, there are a number of initiatives for modernisation through the introduction of ICT systems, as well as regulatory and legislative initiatives for the development of new services and the protection of citizens in the new digital environment.. Each Ministry or supervised entity, and every region in the country, has certain plans, initiatives or actions for the development of information and communication technology applications. However, it seems that all these policies and actions have not created yet the momentum needed for an active implementation of eEurope practices within the public structure. For instance, the presence of many Ministries in Internet remains a pilot project, with little information for citizens and limited capacity for the provision of on-line services. The content of sites is however constantly enhanced.

Nevertheless, all Ministries' Operational Plans has put special emphasis in the implementation of e-government practices. For instance, in the Operational Plan of Ministry of Development there is a special measure about a National electronic procurement programme aiming at the formation of an integrated system of Electronic State Procurement through which the State Procurement of Goods will be modernised, the procedures of supply management of all the state bodies and the local administration bodies will be computerised and a large number of enterprises will be forced to adapt to the practices of Electronic Business so as to be able to participate in procurement of goods call for tenders. The target is the digitisation of all state procurement procedures by 2005.

Commitment of the country in the introductions of e-Healthcare

The Operational Plan of Ministry of Health and Welfare gives special emphasis in the introduction of e-Healthcare practices in the national framework targeting mainly on the needs FOR telemedical applications offering services in remote areas (e.g. Greek islands).

Capability of the country to create a political climate able to stimulate the diffusion of e-commerce

One of the most important projects aiming at the diffusion of e-commerce in Greece took place the last three years under the title: "INCENTIVES FOR COLLABORATIVE ACTIONS OF ELECTRONIC COMMERCE AND EDI". The project was about supporting (subsidies) clusters for the development of innovative systems of electronic commerce, aiming, on the one hand, at the

support of specific business procedures of the business-users and, on the other, at the attraction of interest of a large number of Greek businesses for the Electronic Commerce. The project has been recently completed. 62 clusters of 330 SMEs participated to the project. And the total budget was 12 Meuros.

It has also been recently completed the National Clearing House by the Athens Chamber of Commerce (Total budget 2Meuros).

The project was about developing a pilot "Trusted Third Partner" for the 70000 members of the Athens Chamber of Commerce as much as the promotion of use of electronic business technologies. The services are mostly about EDI messages (such as: Orders, Delivery Receipts, Invoices and Price lists and VAT forms, Tax for Wage Services, Income Tax, Cargo etc.). Moreover, a pilot service was developed that will provide: Services of editing and certifying Digital Signatures, (with which encryption and decipher will take place). Services of timing and certification of interchangeable messages, Services of Storing (saving) interchangeable messages.

Finally, one of the latest measures for creating a friendly environment to go digital was the formation of 12 Electronic Commerce Centres all over country. The 12 **Electronic Commerce Centres (ECC)** are recently (September 2001) completed and functioning. The ECC are centres that provide information to all those involved in commercial transactions.

7.8. Ireland

Political awareness and sensibility to eEurope in the country

In Ireland, the government has generally exhibited a high attentiveness towards the issues that can be related to eEurope and related initiatives. Not only were these initiatives fully acknowledged, but the policy makers here have sought to actively espouse them. Arguably, we trace this supportive strategy to the following three sets of reasons. In the first instance and on a very general level, the Irish government has traditionally been very supportive of the EU originated policy initiatives and these were by and large perceived as beneficial, not least from the national interest perspective. This is also the case with the eEurope initiatives. The second set of reasons also has some pragmatic connotations and can be traced to the policy makers' perceptions of the inextricable link between the eEurope actions and the country's ability to keep and improve its status as a knowledge economy. It can be suggested that the policy makers have had a somewhat mercantile perspective on the Information Society which is conducive for benchmarking and various evaluations with competitive connotations. Indeed, many observers and policy makers here point to the ICT sector (manufacturing and services) as being the main driver of the recent successful economic performance of the country. The third set of reasons can be linked to the perceptions of the potential for improvement of some core public services, notably health and transport along the envisaged eEurope lines, with a similar notion being held in relation to eGovernment and public service delivery.

The eEurope initiatives are also perceived as being broadly supportive to the process of ICT innovation, while some are seen as directly influencing it. Ascertaining whether and precisely to what extent these innovative activities can be directly attributed to the eEurope action lines and to what extent are they the product of more or less spontaneous local initiative (that is to say,

national-level based initiatives) is not always a straight forward exercise. Certainly, eEurope broad framework and precise targets and benchmarking process do support innovative processes at the national level. However, it appears that in the areas where the performance was 'traditionally' good, these actions have had a better impact. Furthermore, in the areas where some general innovative approaches were initiated recently, the innovative activities relating to the information society have been particularly extensive. An example of the later is the case in public service delivery, where most of eGovernment initiatives can be traced to the eEurope, but at the same time, the breadth of these initiatives is appreciable only when one considers the whole context of changes to the public service delivery concept which has been initiated previously¹⁴.

In addition to the above, many innovative activities that are initiated by the eEurope also include private and public partnership approach to their fulfilment. A primer can be the speeding up of technological innovation in traditionally public services. For example, most of the initiatives relating to the eGovernment have been prompted by the eEurope, they were articulated at the national level while the operational matters and delivery design depend on the private sector input to a considerable degree.

National context for the implementation of eEurope within administration - public structure

The Irish government has relatively early recognised the challenge and opportunity that the information society and its advent present. Consequently, the government has taken some specific steps, most notably the setting up of a specific advisory body, the Information Society Commission, which has played a paramount role in policy directing. This body has, among other things presented an action plan for implementing the information society in Ireland, which has many points of tangency with eEurope – discussing the issues such as telecommunication infrastructure, e-commerce, promoting access and info-inclusion, and public service delivery using the ICTs. The government has set up the Implementation Group, charged with ensuring the implementation of the provisions of this action plan across all government departments and agencies. In addition, there is a scope for some iterative developments and inputs by this group. The group is assisted by the Policy Development team based in the Department of the Irish Prime Minister, in itself indicative of the importance attributed to the area of Information Society and its embrace. This team is primarily concerned with a continuous development of the policy framework conducive for the information society agenda in general, with the special attention being paid to the eGovernment.

The eEurope action plan has been taken on board by the government and some explicit and specific measures have been put in place. In relation to the implementation of eEurope, there is a special (part of) public body charged with co-ordinating the implementation of the Action Plan on behalf of all Government Departments. This administrative body is a sub-division of the Department of Enterprise, Trade and Employment (equivalent to the department of economics) and is called the e-business unit. The role of the Unit is to help Irish enterprises to *meet the technological, competitiveness and strategic challenges, and exploit the opportunities, posed by the new Information Communication Technologies (ICTs)*. The Unit, in collaboration with the Department of the Irish Prime Minister, is responsible for The eEurope Action Plan that was approved by the European Council at the Santa Maria de Feira Summit in June 2000¹⁵.

¹⁴ Indeed, the initiative to deliver better government has been in inception from 1994 and the relevant policy document was published in 1996 under the title *Delivering Better Government*.

¹⁵ The Action Plan, comprising of sixty-eight recommendations for implementation within the overall deadline of 2002, is monitored at both Ministerial level and Heads of Government/European Council level.

The main areas of responsibilities and actions of this Unit are summarised below and the focus is on the following:

- Promotion of an effective e-Regulation Framework – this is deemed necessary due to the changing ways that the business is conducted (e.g. e-commerce), with a particular aspect being of the increasing transnational nature of the new information and communication technologies and new economy and e-business, which also relates to the need for universal codes of practice consistent with the rights of business, citizens and consumers.
- Enactment of relevant legislation - effectively ensuring that legislation with an e-business dimension, is business friendly. Examples include The Electronic Signatures Directive, which was transposed into national law by the Electronic Commerce Act 2000 ¹⁶ . Similarly, [The Electronic Commerce Directive 2000/31/EC](#), (formally adopted by the European Parliament and the Council on 8 June 2000) is now being transposed into national law by the e-Business Unit and must be implemented by 17 January 2002.
- Liaison with other Departments/Agencies - mainly liaisons with the Department of Public Enterprise to promote competition in telecommunication services area aimed at achieving low cost broadband connectivity throughout the country
- Awareness Initiatives and Statements – mainly focusing on encouraging business to exploit the opportunities afforded by ICTs through development agency initiatives such as the 'Openup. i.e.' initiative by the Enterprise Ireland for e-business aimed at creating awareness of benefits of (and generating interest in) e-business, and the 'www.empower. i.e.' initiative aimed at encouraging Irish businesses to cost-effectively and relatively easily establish and maintain their online presence; related to this are initiatives aimed at developing business and consumer trust in e-business through awareness campaigns
- Encouraging investment in people as well as technology – mainly educational/training initiatives designed to develop appropriate skills, to promote innovation and to meet emerging skill gaps, particularly in the ICT industries and e-business areas.

Main policies in support of the development of ICT networks and high-speed infrastructure within the country

In relation to the main policies that support the development of ICT networks, and that are also relevant for eEurope, it is useful to start with deregulation and liberalisation of the telecommunications market. This move has been necessary for bringing the country in line with other EU and OECD countries. Liberalisation has been associated with an increase in investment in new technology and services, mainly by encouraging new global entrants and is therefore conducive for technological innovation. The flexibility of the Irish regulatory regime in a broad sense has been acknowledged and seen as conducive for this liberalisation, with a further need for the evolving regulatory framework to complete the regulatory environment¹⁷.

In the Irish context, liberalisation of ICT networks is most readily associated with the voice telephony market, which was liberalised in December 1998, one year in advance of the EU

¹⁶ Enacted on 27th of November 2000.

¹⁷ OECD report

deadline. The Director of Telecommunications Regulation, appointed by the government in July 1997, was instrumental in this process and it¹⁸, awarded 29 new telecommunications licences. The Office of the Director of Telecommunications Regulation (ODTR) operates a policy of consultation where possible and is committed to facilitating the operation and competitive development of the sector, within the parameters of EU and Irish law. However there were some reservations expressed in relation to some aspects of liberalisation – for example, the issue of local loop unbundling has not proceeded in practice as the policy makers have wished. The reasons can largely be traced to the high market power of the former monopoly *eircom*, and the terms of its Reference Access Offer. In addition the *eircom* is still dominant operator with 85% of fixed line market share in 2000¹⁹. Nevertheless, the voice telephony area has been significantly improved.

However, for the knowledge-based economy, more advanced networks that deliver high-speed data, sound and video traffic are of paramount importance and the development in this area is now in the focus. Thus for the wide-spread availability of advanced telecommunications networks in businesses and homes, extensive international and national broadband connectivity is required and the government has assumed an active role in supporting the development of high-speed infrastructure. In July 1999, the government announced a public private partnership with the telecommunications company Global Crossing to provide 25gbps capacity to the U.S. and 24 European countries with the aim to enable Ireland to obtain up to 15 times the current international capacity out of Ireland at one tenth of the existing unit cost levels. EU aid of 23 Million Euro was also announced in July for the roll out of a national broadband telecommunications system.

An important plan in this regard and related to it is an initiative to link research networks in Ireland and the US using the cutting edge "Next Generation Internet"(NGI) and "Internet 2" research initiatives in the US, under which the Republic will link directly to these two Internet research networks in the US via the fiberoptic telecommunications network it acquired through a public-private partnership deal with the Global Crossing. It is envisaged that the network will also provide the infrastructure support for projects funded under the £1.95 billion education and research programme in the National Development Plan 2000-2006. The State's research capabilities and its international research profile will be considerably advanced and the Irish universities and institutions will be able to collaborate within 18 months with the 170 leading institutions in the US involved in the NGI and I-2 projects. The NGI and I-2 initiatives in the US are supported by both universities and industry and are test-beds for leading Internet research in areas such as virtual reality and three-dimensional collaborative environments²⁰. This development is very important since the Republic has lagged behind other European states in funding research. Although the Government was commercially astute and sold most of the fibre lines it received in the Global Crossing deal, it also set aside more than a dozen fibre lines for use in national development projects. Sixteen of these high-speed lines will form the research network and will be managed by the HEAnet, the State's national education and research Internet network. HeaNet is Ireland's National Research and Education Network (NREN), and it provides high quality telecommunication links to support academic and research programmes and activities. Its backbone network delivers high bandwidth network services to more than 40 institutions and 140,000 students and academic staff.

¹⁸ ODTR's terms of reference or *raison d'être*, are to oversee the development of a competitive market and introduce appropriate regulation.

¹⁹ ODTR, The telecommunications Market Quarterly Reviews, September 2000

²⁰ For example, some practical implementations include eHealth since researchers in the US say it will be possible for a surgeon in San Francisco to operate on a patient in New York over a very high-speed Internet connection, using special sensory gloves and virtual reality goggles.

Commitment of the country in relation to the speeding up of technological innovation in traditionally public services - digitalisation of public services

A relevant issue demonstrating the commitment to implementing the information society was the establishment of The Information Society Fund. It was set up by the Government in July 1999 for the purpose of kick-starting and resourcing projects or initiatives proposed by Government Departments or bodies under their aegis which are consistent with the objectives set out in the Government's [Action Plan for the Information Society](#). All applications for funding from the Information Society Fund must be made by or through a Government Department/Office, while independent bodies or those not operating under the aegis of a Department need to obtain government sponsorship i.e. sponsoring department. An Evaluation Team including representatives from the Department of Finance and Department of the Prime Minister has been established to assess projects seeking support from the Information Society Fund²¹.

Regarding the digitalisation of public services, the most important development has been the launch of a new electronic system aimed at providing greater public access to a wide range of state / administrative services - the 'Public Services Broker' and the new REACH agency charged with delivering it. The parallel developments have been initiated aimed at improving the electronic delivery of Government information and services to the business community - the BASIS project. The delivery model chosen is essentially a portal-based and so-called 'life events' approach. It was deemed that this approach is most suitable for providing transaction-oriented services and that in general it would yield high interactivity. There have also been developments in the area of putting public sector procurement online, with the Public Sector tender Portal going live in March this year (2001). The site provides a central source for procurement opportunities within the Irish public sector, currently being advertised in the Official Journal of the European Communities (OJEC), national and Local press and the information is provided free to all users.

There are some initiatives that stem from eGovernment, probably the most novel being the eCourts project set to radically change the existing Irish courts system by facilitating information sharing and linking information across different courts.

It appears that eGovernment in Ireland is proceeding well, at least according to the survey carried out by Politics on Line INC and Amsterdam-Maastrich Summer University - national Intelligence Test for Governments and Politicians of the EU. Ireland was ranked highest, followed by the UK. The survey evaluated the websites of Prime Ministers, parliaments and the economic and social affair ministries in terms of responsiveness, user friendliness and interactivity.

In the area of education, policy makers were concerned with apparent Ireland's lagging behind regarding the integration of information and communication technologies (ICTs) into first and second-level education and become aware of the need to integrate technology into teaching and learning right across the curriculum. This was the aim of the Schools 2000 project, while the aim of its first phase was to bring Ireland to a level that is in line with other EU partners. An important aspect of this project is teachers' skills development and support. Some results are already visible in this aspect with 45 % of teachers having received IT training (50,000 IT training places were provided). All schools are now connected to the internet while the corresponding figure in 1998

²¹ For 2001, a total of £40m (€50.79m) is being provided under the IS Fund, including £26m (€33m) which has already been disbursed from the Fund to the votes of relevant Departments. For 2000, the fund was £30,000,000 (c €38m).

was 25%. Furthermore, 18% of primary and 46% of secondary schools have their own computer networks, while almost half of secondary schools have their website²².

Additional information deemed relevant for country's specificity and other issues related to eEurope issues

The area relevant to eEurope and not discussed in detail in the above subsections relates to the digital divide. The government is supporting policies aimed at narrowing the digital divide within the country and we can at this point note two such initiatives. The first one concerns the Community Application of Information Technology initiative, which aims to increase the proximity to the information society of various groups that are currently on the wrong side of the digital divide into the information society. The second one is the Equalskills Initiative²³, a government sponsored project aimed at improving and ensuring computer literacy at the regional level (South West & Shannon region). This unique scheme will be provided through community and business access points (the goal is to reach/co-opt 1,000 equalskills training centres by the end of 2001 and to ultimately reach 100,000 people.

²² Source: National Centre for Technology in Education.

²³ The Equalskills initiative will be delivered by ECDL .

7.9. Italy

In the last years, Italy has been rapidly filling in the gap that separated it from the European countries at the forefront in technological innovation. This is particularly evident for what concerns the diffusion of electronic services to citizens and – in general – for all those aspects included in the definition of "e-government". When the eEurope action plan has become fully operational in Italy, the way forward the development of the Information Society had already achieved remarkable results.

A clear example in this sense is provided by civic network, grown on the Italian scenery since the mid '90s and often spontaneously developed by private citizens wishing to create a contact point with other citizens on issues of common interests.

Once disclosed the real opportunities of civic networks, public administrators have started investing in the development of their websites.

What has radically changed, during the last years, also as a consequence of eEurope, is the aptitude of public administrators. Originally, the development of civic networks and the provision of services to citizens through telematic networks was usually delegated to technical staff; while policy experts and administrators did not usually have the necessary experience to handle the opportunities provided by the Internet and did not have a clear idea of the way to exploit it. Now, the deployment of e-government services is no more limited to technical staff, but has become an issue of common interest. This because the Internet is now considered crucial as a communication tool as well as for a more efficient development of operational tasks within public administrations.

This change has occurred slowly evolving during the last years, even if a key impulse derived from eEurope.

The European Action Plan, in fact, has captured policy-decision makers' interest on the need to launch and exploit the Internet through forcing them to approach technical innovation, that can no more be delegated to technicians.

Despite, this shift from a top-down to a bottom-up approach highlighted the partially-poor technical skill from policy makers and their difficulty to adapt to the new patterns introduced by the Information Society; the real value of eEurope was that of "forcing" policy makers to get in depth into e-government and its opportunities.

In this sense, the drive of the eEurope Action Plan was determinant; but much work still has to be done in towards the sensibilisation of public employees and providers of public facilities that still do not look aware of the real opportunities disclosed by the new technologies. E-government and the internal re-organisation of public sector operational tasks it implies, will really take off only when the issue of technological innovation will be perceived by public employees as a real advantage and not only as a top-down policy.

Nevertheless the commitment of the Italian Government in support of technological innovation is strong. This is confirmed by the "UMTS Auction Incomes Fund" that will be assigned according to the following criteria: (are hereafter mentioned the only funding strictly related to the eEurope topics)

- e-government Action plan (800 Billion Lira)
- libraries and multimedia centres (57,5 Billion Liras)
- technological innovation in enterprises (200 Billion Liras)
- school teachers technical training (150 Billions Liras)
- training skill card for citizens becoming of age in 2001 (50 Billion Liras)

- scientific and technological research (900 Billion Liras)

Political awareness and sensibility of eEurope

The Italian Government agrees on the principles set by the eEurope action plan and since the launch of the policy measure, has been seriously committed in developing a political context to facilitate the diffusion of the eEurope principles.

Nevertheless, the diffusion of the information society was considered a priority since long before the presentation of eEurope plan in December 1999 by the President Romano Prodi.

This happened because the diffusion of advanced technologies is regarded as a good opportunity for the modernisation of the country.

Since the starting of the first civic networks – in the mid 90s - network infrastructure are seen also as a tool providing citizens with tangible opportunities to play a more active role within their social context, to have a more efficient contact with central and local administrations. Moreover, the new economy is a real driver of economic growth for the south of Italy, that could be prompted up to fill in the social and economic gap separating it from the more advanced regions of the North and Centre of Italy.

National context for the implementation of eEurope

Italian Government shares the principles established by the eEurope Action Plan and has subsequently issued umbrella action plans totally in line with it.

Beside manifesting its consensus, the Government stresses the importance of some of the aspects touched by eEurope, such as:

- broad band infrastructures diffusion in disadvantaged areas, as far as the ongoing liberalisation process is not sufficiently guaranteeing an equal development in all areas;
- new technologies as a driver for new job creation and the improvement of the quality of work;
- advanced technologies as a support for the development and affirmation of local realities;
- diffusion of e-economy within Public Administrations;
- definition of common policies on network security and Internet domains.

Together with these priorities, the Government stresses the importance of other action lines, not expressly addressed by eEurope, but playing a key role for what concerns the Italian situation:

- support to a co-ordinated approach – i.e. both national and European - to the research on informatics, multimediality and ICT with the aim of supporting the competitiveness on the international scene of the Italian actors;
- support to a more proactive co-operation between University and private sector, in order to favourite academic spin offs;
- improvement of the efficiency of the public sector and re-engineering of organisational processes through a pervasive use of ICT;
- raising the youngsters' interest on the real technical-job opportunities disclosed;
- stimulate technical training of private and public sector employees;
- regulatory framework establishing new criteria for assigning internet domains, in order to prevent any possible abuse;
- high level of safeguard of privacy and protection of personal data, through strengthening citizens' trust in the development of the Information society.

Nevertheless, it is worth to remember that Italy has since long shown interest in the topics related to the diffusion of Information society, earlier than the approval of the eEurope Action Plan.

With a Decree approved the 5 February 1999, the Italian Prime Minister set the "development of the Information Society among the primary goals of his action" and created 3 bodies in charge of monitoring, studying and co-ordinating the growth towards the complete affirmation of the Information society in Italy. Together with the Committee of Ministries and the Inter Ministry group of Study, the Information Society Forum– within the Prime Minister's Cabinet – has been created in order to co-ordinate, promote and monitor any activity supporting the Information Society in Italy. After the launch of the eEurope action plan programme, the Forum has been monitoring the implementation of eEurope in Italy. Some of the IS-Forum contributions were collected in the Action Plan for the Information Society , issued by the Committee of Ministry for the Information Society on the 16th June 2000. In October 2000, the IS-Forum has issued "e-Italia" report, that exhaustively describes the achievement of the Information Society in Italy.

The Action Plan for the Information Society , approved on the 16th June 2000 and articulated into 4 sections ("Human Capital", "E-government", "E-commerce", "Infrastructures", "Competition and Access") is coherent with the eEurope Action Plan 2002 and intends to enforce it into the Italian system.

Main policies in support of ICT networks and high-speed infrastructure within the country

The growth opportunities disclosed by the diffusion of broadband – especially in disadvantaged regions – is considered a key step in the Italian policies for the Information Society. In this sense – the first draft of the Notes for an Action plan on "Broadband Infrastructures as Necessary Conditions for the Development – presented by the Information Society Forum in February 2001 – considers the provision of access to broadband networks as a "universal service" and therefore, a right for all citizens. Access to high-speed infrastructure needs to be supported especially in those geographic areas where there has not been an economic growth and competition sufficient to generate critical mass for a significant demand of high-speed connectivity.

On an experimental level, MURST – (Italian Ministry of University and Scientific Research) is developing within its "National Research Programme" the Garr-G high speed network for research and training that is actually experimenting innovative networking solutions and advanced multimedia applications. This pattern is expected to be applied for the creation of innovative technologies and software for telework, teleteaching and telemedicine innovative applications. An important step towards this direction was set by the Financial Law for 2000 that set the basis for the creation of broad band communication network to be applied for scientific and technological research. On this purpose, has been set up the National Institute for University and research Network.

In order to carry out successfully this task, Italy tends to support the policy of exploiting Structural Funds for financing the diffusion of broadband in disadvantaged areas, as stated by the Ministry of Treasury in the act in support of objective 1 Italian regions years 2000 - 2006. This measure partially coincides with the guidelines defined by the European Commission for the Community Support Framework for the period 2000 – 2006. But, the principles set by the Commission , allow public co-funding only for those regions whose level of competitiveness is considered insufficient.

According to the first draft of the Notes for an Action Plan for Broadband Infrastructures, Local Administrations are expected to play a key role in the diffusion of broad band technology. In

particular, Regions, Provinces and Municipalities could monitor the existing technical infrastructures, find out the areas with a strong need for fiber optic as well as public institutions (i.e. schools, universities, etc.) requiring broadband connection. In addition, they could identify ICT suppliers able to invest in the territory and adopt all administrative acts that may facilitate the carriers' task. According to the draft document, together with the Prime Minister's Cabinet, the Minister of Treasury, Minister of Communications and Minister of Industry would participate to this process through defining principles of access, schemes for fiscal exemptions for investment in broadband – monitoring of national backbones and their effect on business.

After the introduction of eEurope- the main guidelines for telecommunication infrastructures and network technologies can be synthesised according to the following points:

- acceleration of the voice-data-images convergence and integration, for a maximum diffusion of interactive multimedia services on line;
- setting up of ICT broadband infrastructures within the medium-long term , accessible at low costs and able to support innovative services;
- optimisation of existing infrastructures, while waiting for the large scale diffusion of broadband;
- adoption of regulatory framework and pricing policies in support of the new ICT scenario.

It is worth to be highlighted that the development of ICT infrastructures in the regions of the South of Italy, traditionally lagging behind, is mainly developed within the Objective 1 Community Support Framework. In particular, all the objective 1 regions Operational Programmes, have, among their goals, the creation of a Unified Regional Network of Public Administration.

Commitment of the country in the introduction of e-Healthcare, e-Education and e-Government and, more in general, in the speeding up of technological innovation in traditionally public services

Italy has made a remarkable effort to speed up technological innovation in public services. This commitment has been only partly prompted by the approval of the eEurope action plan. For example, a key role in the innovation of public sector services - and in particular of the educational system - has been played by the "Didactic Technologies Development Plan"- PSDT, launched by the Italian Ministry of Education on the 24th April 1997. The PSDT has radically modified the use of technological tools in Italian education system. This was done through prompting the diffusion of PC , the Internet and multimedia resources in the Italian schools and supporting technical training of the teachers. Since its launch PSDT has set ambitious goals and , once these objectives perfectly aligned with the eEurope principles, they have been partly reaffirmed in a prolongation of the PSDT for the period 2001 – 2003 with the Action Plan for the Information Society that devoted additional funding for technical teaching and training. In addition, e-education in Italy has rapidly evolved also thanks to successful initiatives focussed on the enhancement of the quality of training, such as the Set programme launched in 1999 by the Ministry of Education. Some interesting initiative support the diffusion of the PC among students and youngsters – such as "a CPU for students" and the "Credit Card for Training" that – though leveraging the diffusion of PC among Italian students – provides supports to the diffusion of advanced teaching methods, also outside schools and within the families.

The Italian Ministry of Healthcare is now active in the definition of a co-ordinated strategy for the healthcare sector in order to facilitate communication of citizens with the healthcare institutions

and supporting the flux of information between the healthcare operators and other administrations. On this purpose, the Economic and Finance programme for 2001 – 2004 and the Budget Law for 2001, have defined specific measures addressed at the introduction of computerised management for prescriptions interconnecting to the whole system healthcare operators, together with the Ministries of Health and of Treasury, regions and autonomous provinces of Trento and Bolzano.

The Ministry of Healthcare is currently devoting a strong effort in the development of user-friendly front office tools for citizens, and in particular, the "Healthcare Card". Beside storing essential medical data of citizens, this facility will make easy medical prescriptions and visits reservation and will provide access to the citizens database-records from remote locations.

Italy is rapidly filling in the gap with other countries in the implementation of e-Government facilities. This process started earlier than the introduction of eEurope: when the e-Government Action Plan was launched in June 2000 to empower the principles set by the eEurope action, Italy was already at a good point with the launch of innovative services to citizens through Internet and ICT advanced tools.

The e-Government Action Plan summarises several of the necessary steps to be undertaken in Italy, also from an organisational point of view. Among the areas of intervention defined by the Action Plan: the implementation of a national network connecting all public administrations (first setting the interoperability of existing local networks and secondarily by granting connectivity to the areas not covered – both local and central level). In order to enforce the principles established by eEurope, the E-government Action Plan intends to prompt access to citizens to electronic information, through supporting the development of web portals delivering information (i.e. unified portal of norms), providing services to citizens and to enterprises that will be enabled by identity electronic signature. Another goal of the action plan is to centralise the registry offices into one single database accessible by all municipalities, together with the launch of other initiatives, such as: experimentation of electronic identity cards, promotion of digital signature, e-procurement and training activity of public employees.

Nevertheless, some of these topics have already achieved satisfactory results.

For example, the efficiency of public administrations in disadvantaged regions in the south of Italy has been significantly improved by the Cipa project launched in October 1999. Guidelines for online procurement of goods and services handled by public administrations has been started with the approval of the Finance Law for 200 nr. 488. Italy was among the very first countries in Europe to approve a regulation about digital signature in 1997. Last but not least, the first examples of civic networks as well as websites handled by local administrations, now widely diffused in Italy, appeared in Italy since the mid '90es.

Capability of the country to create a political climate able to stimulate the diffusion of e-commerce

The great challenge, for the Italian Government, is to prompt the diffusion of the electronic commerce among Italian enterprises, and in particular SMEs, the vast majority of Italian entrepreneurship.

According to the Action Plan for the Information Society – eCommerce, presented on 16th June 2000, most actions undertaken by the Italian Government will be focussed on small and medium enterprises that are expected to be ready to adapt to changes occurring in the market. Italian SMEs

are the most exposed to the action of external competitors but often encounter huge difficulties in retrieving the necessary human and financial resources to be really competitive.

Nevertheless, there is still a remarkable concern of the possible implications that the diffusion of the e-commerce may have in Italy: basically, there's a risk that part of the population may remain excluded by the offer of goods and services sold through the internet. Moreover, there are strong implications in term of human resources involved in the re-organisation of the production and delivery process, implied by the e-commerce: some intermediaries may see their role significantly reduced since the introduction of new forms of transactions. On the other side, there's still a rising problems of skill shortage, especially for what concerns technical professionals. There's a major skepticism regarding Italian enterprises' capacity to face the competition of operators traditionally active in outdoors markets.

Among the 7 chief areas of intervention highlighted by the action plan:

- training and raising awareness of professional operators with regard to the opportunities disclosed by new technologies;
- professional training and incentives to SMEs that will start e-commerce portals and support high-technology startups;
- adoption of the necessary regulatory framework.

Among the policy measures approved by the Government has to be mentioned the "Technological Innovation Fund" created within the Ministry of Industry, in support of a tax deduction policy for enterprises investing in the e-commerce and in the technological equipment of companies active in the shoe, textile and clothing industries.

In line with the eEurope action plan, the Italian Government launched in April 2001 a programme offering financial support – tax deductions as well as contributions to consortia of companies developing e-commerce portals.

7.10. Luxembourg

Foreword

Political structure and competences

- the state
- three districts: Diekirch, Grevenmacher, Luxembourg
- three languages Luxembourgian, German, French as well as common use of English

Legislative branch: unicameral Chamber of Deputies or Chambre des Deputes (60 seats; members are elected by direct popular vote to serve five-year terms)

elections: last held 13 June 1999 (next to be held by NA June 2004)

note: the Council of State or Conseil d'Etat, which has 21 members who are appointed for life, is an advisory body whose views are considered by the Chamber of Deputies

Population

437,389 (July 2000 est.)

Age structure:

0-14 years: 19% (male 42,375; female 40,109)

15-64 years: 67% (male 148,205; female 145,325)

65 years and over: 14% (male 24,446; female 36,929) (2000 est.)

Labor force: 236,400 (one-third of labour force is foreign workers, mostly from Portugal, Italy, France, Belgium, and Germany) (1998 est.)

Labor force - by occupation: services 83.2%, industry 14.3%, agriculture 2.5%. (1998 est.)

Some indicators of ICT take-up status

Telephones - main lines in use: 330,988 (2000)

Telephones - mobile cellular: 180,563 (2000)

Telephone system: highly developed, completely automated and efficient system, mainly buried cables

domestic: nationwide cellular telephone system; buried cable

international: 3 channels leased on TAT-6 coaxial submarine cable (Europe to North America)

Television broadcast stations: 8 (1999)

Televisions: 285,000 (1998 est.)

Internet Service Providers (ISPs): 13 (1999)

24 Internet users per 100 inhabitants (1999)

35 Internet hosts per 1000 inhabitants (2000)

Political awareness and sensitivity to eEurope

In May, 2000, the prime-minister John-Claude Juncker issued a speech on the state of the nation declaring that Luxembourg was fully committed to eEurope in the form of the eLuxembourg action plan, building on several initiatives such as the Info 2000 committee in 1995.

"It is generally recognized that the advent of Information Society will deeply affect most of the aspects of our life including our methods work, of our means of economic production, of our social relations or of our forms of leisure. The Grand Duchy is well positioned to pull advantage of the potential of development offered by the new information and communications technologies and notably Internet. At this time the infrastructure of communication of the country is performant and the levels of data processing equipment in enterprises and households is superior to the European average. Despite this promising start, the study carried out in the framework of the long-term research centre (CEPROS) emphasise certain weaknesses that risk slowing down this promising evolution. In this light the Government has recently carefully examined the current position and has outlined solutions to face the future requirements. The action program eLuxembourg constitutes the response of the Government to the challenges launched by emerging Information Society. It aims notably to enable the country and its citizens to take advantage of the potential offered by the Information Society, while compensating for certain risks of exclusion".

A global eLuxembourg action plan is proposed, based on the following themes:

- To put the new technologies to the service of citizens and enterprises
- To favour access to the knowledge by the new communication technologies
- Improve the knowledge and qualification levels of students relating to IS
- To favour access to the knowledge by the new technologies communication
- To quickly train the workforce for the future skills and trades
- To develop the infrastructures and the services communication to the national, regional and international level
- To adapt the statutory framework for the Information Society
- To promote the electronic commerce

To put the new technologies to the service of citizens and enterprises

The new information networks offer particularly promising perspectives for the modernisation the state, improving the relations with the citizens and the enterprises or improved effectiveness of its internal functions. The state that wants to be the leading information producer must use the communication networks, notably Internet, to broadcast public information and offer interactive services to the citizens. The advantages of Internet can be seen notably to his interactivity, the character of multimedia and its ease of use must be employed to allow the development of general services. Regarding interactivity, it is essential not to under-estimate the need and impact of electronic mail development. User-friendly access to the electronic services will be enable through a unique portal, that the Government will set up the next three next years. This portal will enable online access to public organs, and to guide the user through the administrative. While indicating words-key or while looking for by subject the user will be directed towards the sites offering electronic services. All the ministries and administrations in direct and continuous contact with the public, will be encouraged to «to open an electronic window». This initiative will require the simplification of administrative procedures, of which certain are perceived by the citizen as being particularly heavy. In regards to the enterprises, these will have for example, as early as 2002, the possibility to electronically submit their VAT declarations. The set up new electronic services for citizens and the enterprises will necessitate adequate measures to the level of the infrastructure of the state. Work places in accordance with the bank sector standard of the will be installed. The coordination of all the activities, the training of civil servants, as well as the assistance to public organisms in the implementation of the different projects figure equally in the Government action plan.

To favour access to the knowledge by the new communication technologies

The cultural and scientific heritage has to be easily accessible on line by the public, without concern for opening hours or distance. The eLuxembourg plan encourages the digitisation of documents and images, all while putting the accent on linguistic variety. Digitisation projects are currently being studied by the national Library, to the National Audiovisual Centre, as well as in the framework of the project ENA. The objective of ENA is set it up of a centre repository of the knowledge on Europe. The national Library will quickly put in place a portal to the major world-wide information sites. eLuxembourg also aims to promote cultural projects having access to the new technologies promoting artistic expression (e.g. experimental music), and multimedia applications in the cultural domain (e. g. multimedia visits of museums).

Improve the knowledge and qualification levels of students relating to IS

The Integration of multimedia in education constitutes a new challenge for modern teaching. In the digital era, the school plays an important role, as does the technological level of teaching. From a technical point of view, it is essential raising the teaching of the technologies of information and communications (ITC); from a pedagogic point of view, it is a question of training them to use the ITC in an effective way and at the same time maintaining a critical spirit.

In parallel, it will be necessary to watch to sensitise the teaching profession to the advantages of the ITC, offering them an initial and/or continued training. Today, all the high schools, and all but one primary schools and pre-school are connected to Internet. The Ministry of National Education, Professional training and Sports has chosen to raise the challenge of systematically introducing new technologies to schools. It is necessary to connect all teachers to the Internet. For 2001, two major projects are foreseen:

Equip a high school-pilot with portable computers and integrate this tool work in the teaching methods and in the learning processes. Later this will result in the introduction of the electronic briefcase to school. This project aims to teach the young to become responsible actors in the

Information Society while helping to develop autonomous learning techniques and greater competence in information handling.

To put in place a network informing them of all schools activities in a specific community, allowing exchanges of information and good professional practice, with three objectives:

- spread knowledge and of competences through potential communities;
- to contribute to the personal professional development of the teacher;
- to energise the exchanges between all the school partners.

To rapidly train the workforce for the future skills and trades

The deep change brought about by the digital revolution currently manifests itself in a strong demand for ITC skills in the employment market. This phenomenon is seen across Europe, and particularly to the Luxembourg where, underlined by the CEPROS study, it risks having a dangerous effect on manpower costs. The trans-border reservoir has until now provided a partial solution to this problem, risks reaching its limits. The Government objective is to quickly develop training centres on the new technologies and to set up new specialised high-level training of, currently in cooperation with foreign establishments.

In this framework, post-university training will be offered in collaboration with the University of St. Gallen (CH) from 2001 with the intention of to train the business leaders in the domain of media technologies.

The recently inaugurated "Medienakademie Luxemburg", will be developed to meet the needs of the private sector. This initiative has been set up in cooperation with the Medienakademie Cologne (D).

- The City of Sciences that will be installed in the next years on the industrial wastelands to the south of the country, will offer a framework of support for the set up of specialised training institutions in this domain.
- The courses offered by "l'Institut Superior of Technologies" (IST) will be developed to meet these new needs.
- To develop the infrastructures and the services communication to the national, regional and international level

Expensive and/or slow access will undermine initial enthusiasm and discourage the users. The Government favours the set up of a healthy competition under the supervision of the Institute of Luxembourg regulation (ILR) that will enact new powers to this effect. The regulations on the unbundling of the local loop comes into force in 2001, should contribute to development of a broader range of new services. Some actions are seen to favour the rapid set up of broadband services services at a reasonable price for all, the Government encourages the communes, and particularly the owners of cable networks, to upgrade these networks to offer fast internet access locally. Technical trials for the introduction of PLC (Power line communications), allowing access to high speed Internet via the electricity distribution network are currently in study and will be sustained by the Government within this objective. The development of mobile communication networks GSM and UMTS will be favoured, whilst guaranteeing an effective protection of the population and of the environment. eLuxembourg equally aims to release and to support initiatives that promote synergies in the domain of the new technologies in the main region. One of the key elements of eEurope is the trans-border dimension, and the Luxembourg is well placed to play a driving role in the set up of structures and initiatives aiming to position the region Saar-Lor-Lux as a focus of ITC competence.

A preoccupation of the Government is to assure the connection of Luxembourg to the major Internet backbones. In the future, the big European communication networks will link up the European capitals and the principal business centres. The Government will put all the required effort to ensure that it is efficiently connected to these networks, to assure to the Luxembourg enterprises optimised access to Internet. To this effect, a coherent strategy will be set up, in cooperation with the established operators on the market. The regulations defining the conditions of access to the public domain for the set-up of communication infrastructures will be specified in a manner to eliminate the risks of distorting competition.

To adapt the statutory framework for the Information Society

The adaptation of the statutory framework has been initiated with the passing of the law on electronic commerce in August 2000. Meanwhile, these activities have been followed and have resulted in the adoption of several supplementary texts, such that the projected law concerning the protection of personal data, and that on the postal services, etc. Note that the Luxembourg has been the first EU member to implement the directive on electronic commerce and on the electronic signature, allowing secure electronic transactions. A multitude of other legislative and statutory disposals will be again adopted during the next months to accompany the introduction of new services. The relative new actions on consumer protection and the protection of data of a personal character reflect the will of the Government to put the individual to the centre of its attention in the implementation of the Information Society.

To promote the electronic commerce

The Information Society progressively transforms the methods of production and distribution of products and services. It modifies the organisation and working methods of enterprises. As information becomes an strategic resource, enterprises and the organisations have to promote their portfolio of knowledge and of competences in the markets. Such a concept allows enterprises to focus on long-term competitiveness. It seems evident that the instruments of the political economics have to be adapted to preserve their effectiveness in the new economic activities, activities where intangible value surpasses tangible. The political economics must be concerned with competitiveness. The determining factor is productivity - productivity of work and capital - but also and especially the total productivity of the key factor, i.e. technological progress.

The productivity factors are Research & Development (R&D), the transfer technology, innovation, organisational change, quality assurance, continuous training and the management of the intangible capital. ITC facilitate organisational, change reducing production costs and the resulting competitive prices. From an economic point of view, the action plan focus is laid on statutory environment (right of establishment, fair competition), financing of innovating projects (risk capital, capital subsidies and tax credits, incubators etc. eLuxembourg constitutes a key element of the modernisation strategy and diversification the national economy. In the framework of electronic commerce promotion, the principal role of the state lies in the sensitisation of the private sector benefits offered by new technologies and in the creation of a legal framework that replies to the needs of enterprises, while protecting the interests of the consumer.

Among the initiatives that will be put in place by the Ministry of the Economy in the short term are notably:

- the creation of a observatory and of a portal Internet innovation some seen to favour the spread information and promotion of competences;
- the implementation of a electronic code for electronic commerce encompassing the laws and related regulations
- the set up of mechanisms for resolution of litigations on line in order to present an alternate to the judicial.

Conclusion

Luxembourg benefits from having a skilled, well-educated workforce with the highest European living standards, and moving away from traditional industries with over 80% of activities now in Services. An agile political structure has enabled it to take an early start in many of the areas concerning eEurope.

eLuxembourg will touch a multitude of domains and of subjects, eLuxembourg will necessitate an important effort coordination between Ministries and Administrations, public sector and private sector, and other actors. To reply to this position, the Counsel of the Government had decided in his meeting of the 30 June 2000 to create the National Commission for the Information Society (hereafter it « CNSI »). The CNSI, was called together for the first time in August 2000, to coordinate the set up and execution of the eLuxembourg action plan. It assures active government leadership in this domain.

7.11. The Netherlands

With the new possibilities of ICT developments, the ICT sector can reinforce its competitiveness, the government can improve its services to citizens and businesses, and new means of communication and data collection are available to citizens. The Dutch Cabinet considers it essential to the national Dutch prosperity and well-being for the country to make the best possible use of those possibilities. The Cabinet sees an active role for itself with regard to the (further) strengthening of the ICT base in the Netherlands. This policy is to be based on the principle that it will put those preconditions in order for which the government itself bears responsibility and help to remove any remaining impediments to ICT usage insofar as suppliers and users themselves are unable to do so.

The white paper "The Dutch Digital Delta" indicates what contribution the government wishes to make to that development. It defines five pillars which together are of essential importance to the country's position. 'The Dutch Digital Delta' works with a horizon of three to five years.

The Cabinet distinguishes five pillars which together determine the strength of the national ICT base:

Pillar A: The (tele)communications infrastructure

The infrastructural base for information traffic. The Cabinet's ambition is for the Netherlands to have and retain a first-class, affordable, accessible and reliable (tele)communications infrastructure.

The role of the government is to encourage innovation and investment in the telecommunications infrastructure by assuring competition on the telecommunications market, by allocating frequency space efficiently, and by safeguarding the technical reliability of the telecommunications infrastructure.

eEurope and pillar A

The e-Europe action plan devotes considerable attention to the quality and affordability of the telecommunications infrastructure. Emphasis lies on strengthening competition (including in the local connection network) and the new regulatory framework. These are issues which are to some

extent discussed at EU level but which must ultimately be implemented at national level. The Netherlands' efforts tie in closely with the goals of e-Europe. However, the work of bringing rapid, broadband Internet connections to the end user does require additional attention. The government primarily sees a role in this for the private sector. And it sees its own role mainly as an enabler. An initiative such as "Knowledge Neighbourhood" (Kenniswijk) could be made a part of this²⁴. One of the goals of the e-Europe action plan is to improve the European co-ordination of the EU framework for frequency policy in general and the allocation of frequencies for cordless multimedia systems in particular. For the Netherlands, the National Frequency Plan (NFP)²⁵ forms the basis for this. The e-Europe action plan devotes considerable attention to the reliability of the infrastructure. The Netherlands is actively involved in setting up and monitoring the relevant regulations.

Pillar B: Know-how and innovation

Know-how and innovation are absolutely essential if information and communication technologies are to be put to effective and innovative use in the Netherlands. The ambition of the Cabinet is that the Netherlands should have a premium-quality know-how position of its own (both in ICT technology and applications) and strong ICT clusters in which developers and users jointly utilise that know-how. To prevent a situation where manpower and expertise shortages hamper innovations, this country requires a top-level training infrastructure for ICT researchers and specialists.

The government's role is to encourage the (joint) development of know-how in firms and technological institutes, to help create application clusters, to help to promote entrepreneurship in the ICT industry, and lastly - as provider and financier of education - to ensure that the quantity and quality of ICT specialists matches the labour market demand.

eEurope and pillar B

Given the time span of the e-Europe action plan (2002), the emphasis lies on the importance of rapid networks for researchers and students, while the development of technological know-how will be handled through the IST programme and the sixth framework programme. Thanks to the GigaPort-project²⁶, which will result in one of the fastest networks in the world, the Netherlands is well positioned in this. Although the e-Europe action plan is devoting the necessary attention to the importance of ICT training, it is primarily geared towards bringing general ICT skills up to scratch and not at training ICT experts. These general skills are discussed under pillar C.

Pillar C: Access and skills

These relate to the absorptive capacity within society: do citizens and firms have the opportunity to keep up and work with the new ICT developments?

²⁴ The ambition of Kenniswijk is creating a 'Future Consumer Market' with an innovative character and an international exposure. Based upon high quality infrastructures, development and application of innovative, electronic consumer services are carried out in an open manner. Important objectives of Kenniswijk are to break through the deadlock existing between infrastructure and content, to strengthen the international competitive position of the Netherlands as a location for ICT companies and to gain insight into the effects of ICT on social, spatial and mobility patterns.

²⁵ Ministry of Transport, Public Works and Water Management, Directorate-General for Telecommunications and Post. Based on Article 3.1 of the Telecommunicationlaw a frequencyplan has been set up. This frequency plan describes the frequency policies and allocations and became effective in June 1999.
www.minvenw.nl/dgtp/home/cgibin/dgtp/show.pl?layout=totccac&var=timestamp&val=930735850/

²⁶ GigaPort is an initiative of the Ministry of Economic Affairs, Ministry of Transport, Public Works and Water Management and Ministry of Education, Culture and Science. GigaPort is intended to make the Netherlands the leader in electronic highway developments so that Dutch companies and knowledge centres can gain a commercial edge. GigaPort invests, therefore, in a network and in knowledge: the network and knowledge can subsequently be used by third parties. GigaPort does not finance any other activities. (more information: www.gigaport.nl)

The government wants to encourage people to become acquainted with modern ICT and to acquire ICT skills. For the future workforce there is a special responsibility, because the education system must prepare them for the labour market.

eEurope and pillar C

The e-Europe action plan devotes considerable attention to access to information (provisions). Topics which are covered include public access to the Internet in public spaces, incentives for SMEs to go 'digital' and the opening up of cultural and scientific information via the Internet. All these topics will be given due consideration by the Netherlands, for example via Sp.OED Advies²⁷ and the placement of PCs with Internet connections in public libraries.

Bringing skills up to date occupies a significant place in the e-Europe action plan. The action line 'European youth en route to the digital era' cites a large number of actions which, as far as the Netherlands is concerned, tie in closely with the action plan "Education Online". In order to keep pace with the goals of the e-Europe action plan, the government has decided to set aside an extra NLG 50 million (22,689,010 Euro) for the accelerated expansion of the Knowledge Network. All the colleges will be connected to the Knowledge Network by the end of 2001²⁸.

In addition, the e-Europe action plan is also devoting attention to training the working population and to promoting teleworking. The government sees the primary role reserved here for the social partners. The government also believes that individuals whose work brings them into contact with ICT have a responsibility of their own to improve their skills through retraining and supplementary training. The government, however, encourages efforts in this area through a tax facility.

Pillar D: Regulatory aspects

This relates to the system of formal and informal agreements that determine how we deal with one another in the communication society. Any impediments in Dutch legislation and regulations for the development and application of ICT are removed without impairing the legal security these offer. Self-regulation and clear fiscal legislation and regulation play an important role here. This results in sufficient confidence within society to make use of the new opportunities.

The government's role is to further equip national legislation and regulations in order to assure legal security, to create clarity concerning fiscal regimes and to enlarge confidence in the information society.

eEurope and pillar D:

The actions in the e-Europe action plan lie in the area of cybercrime and the EU legislation that is being prepared in the sphere of copyright and jurisdiction. The Netherlands is actively involved in this. The e-Europe action plan devotes attention to establishing the Directive on VAT for specific services offered via electronic means.

The aim is to devise equivalent rules of play for European suppliers of such services. The Netherlands is taking an active part in this discussion. One of the lines of action in the e-Europe action plan is to accelerate e-commerce. To this end, actions have been formulated to boost consumer confidence (for example through codes of conduct and alternative forms of dispute

²⁷ Sp.OED Advies is a program initiated by the Ministry of Economic Affairs and runned by Syntens. The objective is to help SMEs on the 'electronic highway' by providing experts' advice for free to SMEs.

²⁸ For more information see: www.ictonderwijs.nl (information in English), documents: "ICT in Education in the Netherlands" and "The Knowledge Net: an Introduction".

settlement) and improving legal security for SMEs offering electronic services. Via ECP.NL²⁹ and the Disputes Settlement Foundation, the Netherlands is actively involved in the actions targeted at boosting consumer confidence. In addition to this, ECP.NL has various information campaigns which are targeted at SMEs. The campaign "The Netherlands goes Digital "³⁰ and the activities of Sp.OED advice will actively approach SMEs.

Pillar E: The use of ICT in the public sector

The ambition is to optimise the use of ICT in the public sector, so that the provision of services is of very good quality and the public sector can serve as a model for others. By 2002 at least one-quarter of public services are to be delivered electronically.

Apart from making government information available on a large scale, the government's role is:

- to improve service provision to citizens and firms;
- to improve the internal performance of the government by ICT;
- to formulate more visibly the government's (model) role as an ICT player on the ICT market.

eEurope and pillar E:

The e-Europe action plan includes the action line 'on-line government: electronic access to public services' which consists largely of actions which are already being tackled within the Netherlands. These are issues such as bringing on-line government data and providing electronic access to public services. The e-Europe action plan explicitly requests attention for simplified on-line administrative procedures for businesses. In response to the recommendations of the Administrative Costs Committee, the government has already taken this in hand. One of the actions in the e-Europe action plan is to promote the use of electronic signatures within government. In the Netherlands, this is being taken up by the PKI Taskforce, and is also linking in to the TTP infrastructure which is being developed³¹.

Integration, Communication and Benchmarking

In order to improve the provision of information about the possibilities of modern ICT for our society, the campaign "The Netherlands goes Digital " has been launched. This campaign, which wants to make citizens and companies (in the SME sector) better acquainted with the opportunities provided by the information society, consists partly of information disseminated through radio and TV advertisements and partly of an after-care policy (workshops, individual advice in the context of Sp.OED advice). A branch programme has also been set up as part of the campaign. Also, as part of pillar E, the website www.overheid.nl has been operational since 1999. The website www.dedigitaledelta.nl, which contains more specific information about the government 's ICT policy has been established end of 2000.

The international ICT benchmark announced in The Dutch Digital Delta has now been developed and implemented for the first time. This benchmark incorporates a fixed element which examines for each of the ICT pillars how the Netherlands is developing compared with other countries. In addition to this, in the context of the ICT benchmark, a variable element has been carried out in which the use of ICT will be covered in two public and two private sectors. The benchmark will be repeated in 2002.

²⁹ ECP.NL is the national knowledge- and coordination centre for Electronic Commerce. More information: www.ecp.nl (Dutch)

³⁰ www.nederlandgaatdigitaal.nl (Dutch)

³¹ National TTP project, initiative of Ministry of Transport, Public Works and Water Management, Directorate-General for Telecommunications and Post and Ministry of Economic Affairs.

In the second part of 2001 the government will present another integrated overview of the progress of activities relating to The Dutch Digital Delta.

7.12. Portugal

The Information Society has undoubtedly assumed a growing importance in collective living, accelerating new dimensions in social model and transforming economic activities and welfare.

It is now assumed that scientific development opens way to surpass structural obstacles, but requires persistent policies for qualified training of new human resources, for implanting science in social and economic grounds and for strengthening scientific and technological culture.

Consequently, the straight articulation between scientific and technological policies and policies for stimulating the development of knowledge and information society is nowadays more than a reality. It's an imperative. This relationship is seen, for example, at the construction of people's scientific and technological culture, at the generalisation of social uses of communication and information technologies and at the close articulation between investigation activities and business opportunities.

According that the inherent potentialities are revealed at the levels of sustainable employment creation, transformation of organisations, improvement of life quality and economic and social cohesion, its imperative to guarantee the necessary conditions to ensure the adaptation of the Portuguese Society to the emerging opportunities.

The construction of a knowledge and information society has obtained national consensus and is devoted as strategically priority since 1995, as a structuring tool of a new model of social and economic development. It promotes the generalisation of the access to knowledge information and transmission means, crossing stages in acquiring and modernising competencies.

Besides private initiatives designed, the importance of public actions had been crucial for the beginning of the process of information society implementation. The political options have been formalised in March 1996 with the National Initiative for Information Society (*Iniciativa Nacional para a Sociedade da Informação*) and with the constitution of the Information Society Mission (*Missão para a Sociedade da Informação*). It affords the opportunity to implement strategic definitions, to improve social changes and to define measures and initiatives.

The Green Paper for Information Society (*Livro Verde para a Sociedade da Informação*) has been approved in April 1997, representing a strategic document to define the main lines and vectors of intervention needed to guarantee the implementation and consolidation of a knowledge and information society in Portugal.

Equally, new international conditions have determined the political option on knowledge and information society. In fact, strategic opportunities signalled are shared among European Union countries. Portuguese authorities have contributed to the elaboration and approval of the European Action Plan to Information Society – *eEurope 2002* - which set new targets for Europe and for national strategies.

The multiplicity of these actions demands a strong co-ordination effort, ensuring coherence and completeness and avoiding the dissipation of wills and resources. In this sense, it's important to underline recent co-ordination experience at the Inter-ministerial Commission for the Information Society (*Comissão Interministerial para a Sociedade de Informação*), which is responsible in charge of monitoring *eEurope* actions. This commission has been created by Cabinet Resolution n. 114/2000 and includes task forces existent in all Ministries, called Nucleus for Information Society (*Núcleos para a Sociedade de Informação*).

The strategic fundamentals for implementing information society in Portugal were targeted to achieve the most sensitive areas of knowledge and information, evolving the creation of networks, schools connections, development of e-commerce and Internet access.

Main public initiatives implemented includes:

- **Rede Ciência, Tecnologia e Sociedade (RCTS)**

The Science, Technology and Society Network ensures the connection between universities, polytechnic institutes and Research and Development institutes. Internet connections in schools, libraries, teacher-training centres have been made through the RCTS as well as in cultural, scientific, educational and associated entities. Beyond infrastructure availability, it supplies Internet domains, email addresses, software tools, video diffusion and chat rooms.

- **Programa Internet na Escola**

The Internet at School Programme guarantees the connection to the Internet of all public and private secondary schools, installing multimedia computers through RCTS and supporting technical means. The second phase of the programme sets the target of connecting all primary schools until the end of 2001, once all secondary schools were now connected.

- **Iniciativa Computador para Todos**

The Computer for All Initiative is designed to stimulate the acquisition of computers by families. It allows the deduction of 20% of the expenditure with personal computers, modems and network devices in income taxes.

- **Cidades Digitais**

The Digital Cities Programme sets a collection of articulated projects in information society area. The main objectives to achieve are the improvement of urban living, fight against social exclusion and inland and strengthening the ability to compete in global economy. Its integrated in RCTS network and allows the production and diffusion of cultural and educational contents, the generalisation of email use and promotes hardware offers to schools and associations by companies.

- **Iniciativa Nacional para o Comércio Electrónico**

The National e-Commerce Initiative has been approved by Cabinet Resolution n. 94/99 and is aimed to create legislative foundation for the development of the New Economy. Is designed to integrate e-Commerce on economic activities, to reinforce electronic means of commerce, to ensure the protection of intellectual property and consumer rights and to guarantee security in electronic transactions.

- **Iniciativa Nacional para os Cidadãos com Necessidades Especiais**

The National Initiative for Citizen with Special Needs in Information Society has been approved by Cabinet Resolution in August 1999. Basically intends to contribute for accessing and plain use of communication and information technologies benefits by citizen with special needs, has a mean to improve life standards and social integration.

On the scope of the Third Community Support Framework, operational programmes - for Information Society and for Science, Technology and Innovation - were developed, representing, until 2006, an investment closer to 1.750 million Euro.

The Operational Programme for Information Society and the Operational Programme for Science, Technology and Innovation are different initiatives in complementary areas, issued by the same entity - Ministry of Science and Technology.

Financial funds evolved in Operational Programme for Science, Technology and Innovation covers about 988 millions Euro, while Operational Programme for Information Society reports 788 millions Euro, both for 2000-2006. The main strategic lines of the first are to expand innovation and to promote scientific and technological culture. For the second, it concentrates on the field of Information Society (precisely defined in page 3 of the last version).

The Operational Programme for Information Society has been designed as a basis tool that, beyond previewed actions, exerts a strategic dynamism in investments presented by other operational interventions with impacts in this field and is assumed as a good practice reference.

In these perspective, a co-ordination effort will be assured by the manager of the programme, specially guaranteed by the Thematic Group created in the Accompanying Commission of the Community Support Framework, representing a fundamental tool of transversal intervention to implement information society.

Most important objectives of the Operational Programme for the Information Society includes:

- To promote the generalisation of the Internet utilisation;
- To create conditions for the improvement of the supply of equipment's in housing market, in order to multiply 4-fold the number of computers connected to the Internet in Portuguese homes;
- To guarantee public access to the Internet in all Sections of Municipalities and to disseminate email use;
- To ensure the connection of all primary schools and cultural and scientific associations to the RCTS network, freeing from fees all users and supporting production and exploitation of contents;
- To extent the Digital Cities Programme all over the country;
- To implement a programme with capability to multiply 1000-fold Portuguese contents in Internet;
- To launch a national training and certification process of basic skills in information technology;
- To associate a Basic Skills Diploma in information technologies with the end of compulsory schooling (9 years), preventing pupils' info-exclusion;
- To create conditions for the generalisation of information systems in Public Administration, rendering administrative acts when evolving multiple public services;
- To reduce paper consumption as information support used by the Public Administration, spreading digital supports for communication and archiving;
- To promote the publishing of all the information by public entities in the Internet;
- To ensure, as fast as possible, that at least 25% of public procurement were involving in e-Commerce transactions;
- To launch a Research and Development Programme in the fields of Information Society and of computer processing of Portuguese Language;
- To execute a National Plan of Information Highway, stimulating the supply, connection, use and regulation of wide band networks.

However, it's necessary to remember the actions and initiatives presented in other Operational Programmes of the Third Community Support Framework, in the scope of information society. Transversal interventions are reflected in the following Operational Programmes:

- Education – the promotion of knowledge and information society is one of the general targets, seen by creation of the "Learning Society" axis, concentrating investments at the valuation of education professionals and at the schools modernisation as a learning place.
- Employment, Training and Social Development – the information society area is a transversal priority in training domains. Communication and information technology contents shall be included in at least 50% of continuous training activities, representing a minimal weight of 10% of all training times.
- Health – includes a measure exclusively oriented to communication and information technology, targeted to develop and to implement information systems in management processes in health care. And to guarantee the necessary means to the utilisation, at the health services, of the new potentialities of these resources.

- Culture – communication and information technology is defined as a powerful tool for national heritage promotion, reinforcing culture access.
- Farming and Local Development – promotes and supports modernising actions related with the application of new technologies of information society in farming and local development.
- Economic Activities – present in different forms at the intervention axis, the development and application of new communication and information technology in economic activities is a strategic priority of the Programme.

The development of ICT networks and high-speed infrastructure have been constant in Portugal. The anticipation of broad band Internet accesses, with ADSL technology, has allowed an important improvement of ICT network. The entity responsible for the management of the RCTS network – The National Scientific Computer Foundation (*Fundação para a Computação Científica Nacional*) – have promoted cost reduction of communications within RCTS, through negotiation and hiring of network infrastructures. It also participates in the consortium led by DANTE Company that will implement the GEANT project financed under the 5th Framework Programme – IST Programme. The objective is to extend and develop the present interconnection network from the national research network: The Trans-European Network – TEN 155. Also notice that the appliance of Internet Protocol v6 (Ipv6) is planned for 2002, ensuring better conditions to improve RCTS technological quality.

By other side, is important to refer that the implementation of the wireless phones from the third generation is raising large expectation, also at the development of Information Society. Portugal adopted a licence-tender model for the attribution of licences that ponders with 50% the operators' contribution for the development of Information Society, namely through rapid national coverage and the offer of reduced tariffs. Related investments previewed are estimated in about 2.500 million Euro.

Various measures have already been announced, signalling by previewed impact the following:

- Creating flat rates to the access to the Internet of schools and libraries in peripheral zones;
- Offering 1000 computers and UMTS terminals to inland schools, selected by Education Ministry;
- Supporting the creation of business activities related with information society;
- Promoting online training to ease e-Commerce;
- Creating Competence Centres to facilitate small and medium enterprises access to UMTS technologies;
- Offering UMTS devices to ambulances and hospitals;
- Transforming the present diagnosis system using UMTS potentials;
- Creating a system of online document validation;
- Supporting the development of a Portuguese dictionary in the Internet with multimedia contents;
- Creating a Citizen Portal;
- Granting professional probation to university students in information society related courses;
- Supporting digitalisation, indention and availability in Internet of Portuguese major culture references presented in libraries, museums and monuments.

Concerning capability to create a political climate able to stimulate the diffusion of the e-commerce, a first comment shall be directed to the huge programming supported by the III Community Support Framework, as seen.

The Operational Programme for the Information Society, a central tool of the public intervention, registered, in the first year of implementation, the approval of about 10% of global funds available for the entire validity of the programme. This is symptomatic about the dynamics associated, even more if the natural difficulties related with the beginning of investment projects were considered.

Additionally, this view is shared by independent entities in national and international studies conducted. In this subject, a comparative study developed by *Accenture* (the world's leading provider of management and technology consulting services and solutions) places Portugal in intermediate position, sometimes better than countries with high social and economic standards, graduating as "controlled performer".

The commitment of the country to speed up technological innovation in traditionally public services, like health and education, requires the mention of the main public interventions implemented.

The Health Information Network (*Rede Informática da Saúde*) connects almost all the entities of the Ministry of Health (about 92% in April 2001), representing the National Health Card (*Cartão Nacional de Saúde*) a central mean for the management and diffusion of the network (the card is compulsory for all citizens). The projects SINUS and SONHO, respectively applied to Health Centres and Hospitals, are also ahead. However are limited by the development of clinical software. Experimental actions in telemedicine ground are reported.

The expression "health entities" includes all kind of institutions supervised by Healthcare Ministry, as hospitals, health centres, administrative bodies and so on.

The universalisation of the schools' connection to the Internet and the pupils and teachers' training in communication and information technologies are quite present in the policy formulation and definition of the educational sector.

The main goals to achieve in the scope of RCTS had been reached, foreseeing the connection of all schools until the end of 2001. The PRODEP III - Programme for the Educational Development of Portugal (*Programa de Desenvolvimento Educativo para Portugal*) includes various measures in mentioned scopes, namely teacher training actions (including TIC), hardware providing to schools, ensure connection to the Internet of all schools and develop multimedia content for pedagogical uses.

The evolution regarding the development of e-Government has also been visible in Portugal. In fact, the importance dedicated can be detected in the Operational Programme for the Information Society, through a specific axis – Open State: To Modernise Public Administration. This domain has unequal degrees of development, assuming fiscal field natural visibility.

The main actions actually in course includes: to available online forms for download, to submit forms online, to create digital citizen stores, to develop a intelligent portal for all Public Administration, to generalise the use of electronic office solutions, to reduce paper use in information support and to strength public procurement based in digital solutions.

The conscience for the challenges and opportunities of Information Society have been acquired a continuous importance in the Portuguese society. Recent developments, at the level of the publication of the Integrated Programme to Support Innovation (*Programa Integrado de Apoio à Inovação*), confirms it. This programme is designed to refine strategies evolved in the National Plan for Economic and Social Development (*Plano Nacional de Desenvolvimento Económico e Social*), the Regional Development Plan (*Plano de Desenvolvimento Regional*) and the European Strategy of Lisbon. And is justified by the need to set the basis for the transition to a economy and society based in knowledge, strengthening public actions.

However, numerous and relevant tasks have soon to be realised in order to achieve a valid position in global society. Beyond the steps done, the major challenge is concerned with the capacity to follow European Union partners in transferring Information Society benefits to citizens.

7.13. Spain

Political awareness and sensibility to e-Europe in the country bundled

The European Commission initiative e-Europe, approved by the Lisbon Council in March 2000, led the Spanish government to introduce in Spain the initiative: "Info XXI: The Information Society for All".

The Action Plan Info XXI (2001-03) was approved on January 24th 2001 and it gathered all main axes of the government initiative including objectives, deadlines, funding, responsible and collaborators. This Strategic Plan contains a set of more than three hundred actions and projects and it is a major boost for the development of the Information Society in Spain.

On the one hand, the idea is to gather and present together all actions and engagements assumed by each of the Ministries in their budget for the period 2001-03. On the other hand, the purpose is to launch major projects involving different departments and administrations; these projects require as much support as possible both from the private and public sector since at the strategic level, it is highly interesting for the development of the Information Society in Spain.

The Plan of Action Info XXI is articulated under three main lines:

- Fostering the telecommunications and information technologies sector by finalising liberalisation and promoting competition
- Favouring electronic administration
- General access to the Information Society.

This latter part encompasses three types of measures: Those addressed to citizens (access and training), those addressed to business (supporting SMEs "to go digital") and finally, those addressed to Spain and society itself ("Spain on net": historic and natural heritage, tourism, culture, etc).

The Action Plan Info XXI ranges from regulatory specifications to promotion programs (the core of the Action Plan) and specifies the investment to be made by Government in order to become an e-Government.

National context for the implementation of e-Europe within public structure

The "Dirección General para el Desarrollo de la Sociedad de la Información" is the State Office created to meet the e-Europe Initiative and carry out specific actions to develop and co-ordinate the Action Plan Info XXI. This Office is under the "Secretaría de Estado de Telecomunicaciones para la Sociedad de la Información" integrated in the "Ministerio de Ciencia y Tecnología".

According to Law (law 6/1997, 14th April, art.18.2) the "Dirección General para el Desarrollo de la Sociedad de la Información" is in charge of:

- Working out and managing programmes to incorporate citizenship to Information Society.
- Working out and managing programmes to promote New Technologies in all economic and social sectors.
- Working out and managing programmes to enhance SMEs "to go digital".

- Working out, managing and monitoring programmes for Telecommunications and Information Society development corresponding to Structural European Funds.
- Working out, managing and monitoring the national programmes and strategic actions corresponding to the "Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica" in the context of the Information Society promotion.
- The study and international representation of the competent Departments in programmes relating to Information Society.
- The secretaryship of the "Comisión Interministerial de la Sociedad de la Información y de las Nuevas Tecnologías" (Information Society and New Technologies Interdepartmental Commission Office).

The "Comisión Interministerial de la Sociedad de la Información y de las Nuevas Tecnologías" was created according to Law (RD 1289/1999 de 23 de Julio) in order to co-ordinate all those actions of diverse Departments in the Information Society.

Main policies in support of the development of ICT networks and high-speed infrastructure within the country

In order to acquire a general view of the development of TLC Networks in Spain it is compulsory to distinguish between transport network and access network.

In year 2000 the transport network in Spain was 230.700 kilometres long, according to the "Comisión del Mercado de las Telecomunicaciones" (Spanish NRA), totalising a 32% growth from the previous year. This rise owing to the addition of the networks of companies from other sectors (such as electrical, Gas and Spanish Mail Service) to the existing market. Of the total length of the network, 92.000 kilometres were radio-links, 133.000 optical fibre and the remainder being CoAx cable.

Access network is the one with less capacity, it is therefore constrained to supplying Internet Access Services. Through the year 2000 the number of points of access reached the figure of 22.854.851 meaning 55,4 points of access per 100 inhabitants. The 81% of these access lines consist of copper pairs. The bandwidth of the Access Lines is being improved with systems such as IDSN or ADSL.

ADSL is becoming a key player in the development of the broadband in Spain. In June 2001 the ADSL cover reached the figure of 15,5 million lines (81,2% of the total copper pair lines) whilst the number of users grew up to 157.702. Moreover, the unbundling of the local loop is expected to increase the competence and encourage the development of BroadBand access in Spain.

Regarding cable network, the year 2000 has been most active so far, by the end of the year 2,9 million houses were already wired, this means 135% growth from the previous year, reflecting the investing efforts of Cable Operators.

In order to increase the number of broadband accesses among Spanish SMEs, the government decided to grant 6 additional licenses to operate LMDS access (adding up to the 3 existing licenses). The commercial exploitation of these services started during the first semester of the year 2001.

Finally, regarding Mobile Telephone, Spain was the first European country that granted UMTS licenses, aiming to favour a quick development of the broadband access from cellular devices.

Although the forecast was that operators would start offering this service by August of 2001, the whole process has suffered delays owing to the slow development of devices adapted to this technology. Nevertheless, Internet access from mobile telephones using GPRS technology has been on offer from February 2001.

Commitment of the country in the introductions of e-Healthcare, e-Education and e-Government and, more in general, in the speeding up of technological innovation in traditionally public services

The assessment of the degree of maturity of e-government in Spain shows that Spain offers a wide variety of quality on-line services.

Some departments of the Spanish public administration exhibit a high level of development. The "Ministerio de Hacienda" (Treasury Department) allows Spanish companies and citizens to work out their tax-payments, submit their income tax returns and eventually be refunded without sending any paperwork or calling on any tax office.

Regarding Health Authorities, the INSALUD (Spanish National Health Service) and Local Health Authorities have developed plans to exploit ICT in various spheres of health activity.

During 1999 the ministry of health, following the guidelines described in its strategic plan, developed the so-called "Plan de Telemedicina" (Tele-medicine plan) which will co-ordinate the progressive adoption of ICT by health institutions in the short and medium term.

The most remarkable achievement in this field so far has been the integration of the "Atención Primaria" (Health Care for minor injuries and chronic diseases) and the "Atención Especializada" (Specialist Health Care) carried out in the Hospital of Alarcón. This initiative encompasses services as Tele-radiology, Tele-examination and Tele-diagnosis it also allows the medical staff from both fields to electronically share the patients clinical record.

Regarding e-Education, furthermore of the efforts of the Central Government all the Spanish regional authorities have started a number of initiatives intending to supply schools with access to ICTs and to train the teaching community in the educational uses of ICTs.

Capability of the country to create a political climate able to stimulate the diffusion of e-commerce

E-commerce is a new and relatively unknown phenomenon in Spain, only 20% of the companies that use on e-commerce have been doing so for longer than two years.

In order to encourage the development of e-commerce the Spanish Public Administration is working in four different spheres of activity:

- e-Money and secure transactions: in this department the Government has adopted the Directive 1999/93/EC, which establishes a pan-European framework for electronic signature. Moreover the Government is working on the adoption of European Directives 2000/31/EC, on e-commerce, and 1998/27/CE, on protection of the rights of the citizens.
- Computer availability and Internet access for private citizens: an example of this would be the "Plan Conéctate" issued by the authorities of the País Vasco, which grants financial aid for those purchasing a computer. The Central Authorities are carrying out a plan to increase the number

of Public Internet Access Points and to help those physically and mentally disabled to be part of the Information Society.

- Improve the access network, which in Spain is mainly supported by copper pair lines.
- Support SMEs to go digital: it is worth to mention the "Programa ARTE/PYME" which aims to help SMEs by co-funding e-commerce projects that make use of advanced telecommunication services for encouraging the creation of a better environment for its development.

Moreover, in December of the year 2000 the central Government issued a new law (6/2000) that grants tax-incentives for companies' investment in innovation. With this measure the government intends to encourage companies to access the Internet and promote e-commerce.

7.14. Sweden

Political awareness

There is a great convergence between the key goals in the eEurope action plan for an information society and the action plan conducted by The Ministry of Industry in Sweden. As a matter of fact the Ministry has adopted the goals as if their own and therefore it is difficult to know who you should pay the credit. Pronounced in Swedish terms the Government declares that "Sweden shall be the first country to have IT technology available to everyone in society".

The political awareness to eEurope is not on high level. As mentioned there is a national focus, which not always refers to European context. Most of the information available is related to the time for the introduction in the beginning of year 2000. During 2001 most efforts and information are related to the Swedish Presidency of the Council of Ministers. The eEurope key goals were not among the priorities – enlargement, employment and environment - for Sweden's presidency. Searching for new information sources related to 2001 you will find very few.

Sweden have paid a lot of attention to the single issues in the eEurope action plan. As an early adapter of IT and networking society many actions were started before the lasting turn down in the information- and communication branch. The great problems in the Internet industry in Sweden, as well as the rest of the world, which started more than a year ago has affected the rate of innovation and investment. As an example the investment in broadbandfiber, which is a municipally matter to 50%, has decreased to a level where organisations of interest are starting to worry. Local actions for broadband in the county of Kronoberg is a good example (<http://it.kronoberg.se>). Supported by interest-groups of different kinds the appeal for "Broadband to all" may be followed by others if the installation rate will not be accelerated.

National context for the implementation of eEurope

The organisation of the eEurope matters is coordinated by the Ministry of Industry, Employment and Communications. Every concerned department has the responsibility to bring out the shared part of the agreement to execution. No special task force or a public office has been set up to implement the eEurope actions. But one important step is the website [SwedenDirect](#) and [VirtualSweden](#) - the Official Gateway to Sweden. This way an important piece of framework was created for both national and international use.

Main policies - Action plan for greater confidence, accessibility and competence

The action plan contains proposals for measures in three prioritised areas:

- More distinct legislation will increase confidence in information technology. The Government took a step in this direction in May 2000 when it presented a Bill on electronic signatures. The Bill contains proposals for the introduction of EU regulations on electronic signatures into Sweden. The Government is also monitoring developments in electronic commerce and has appointed a working group to implement the EU directive on e-commerce in Sweden.
- Broad investment in education will enhance competence in the development and use of information technology. Among other measures the Government has allocated SEK 30 million to an IT competence enhancing programme for small businesses in 2001-2002. At the same time the special IT programme for schools during 2000-2001 continues.
- Investment in infrastructure and combined services will improve accessibility to the services offered by the information society. Within the next few years households and businesses in all parts of Sweden should have access to networks with a high transfer capacity. A special expert is therefore currently constructing a national IT infrastructure programme. Work is also currently being carried out by the country's various public authorities to make their information available around the clock via the Internet – so-called 24-hour public authorities are taking shape.

Commitment to introduction to eHealthcare, eEducation and eGovernment

Healthcare is, in general, a great field for e-solutions. Sweden has a long and wide history concerning the use of IT in the healthcare sector. But from mid-95 when Internet solutions emerged a new dimension were added: the interactivity. Part of the dialog between the doctor and patient could take place by the help of Internet. In fact three main areas were detected: content, community and connectivity. In all three areas a lot projects are raised. The backbone in the Swedish Network for Communication in Healthcare is **Carelink**. (http://www.carelink.se/eng_frame.asp). Four national healthcare actors: The Federation of County Councils, The Association of Local Authorities, The Private Health and SocialCare Employers Association and The National Co-operation of Swedish Pharmacies started the network in mid-2000. The motive behind this initiative was the conviction that healthcare – for patients, users, and customers – can improve and develop its services through a more advanced use of IT. Carelink works in six specific programme areas, some of them closely linked to each other:

- Information security & catalogue
- Infrastructure
- Communication & documentation in the healthcare process
- Integrated IT-products/services
- Training/education & research
- International co-operation

Proposal for the Swedish top-25 list of eGov services

The Government of Sweden provides a list of services delivered by state agencies.

The 64 most service intense agencies were asked to suggest services suitable for inclusion in the Swedish proposal for top-25 basic services. Replies were obtained from 48 agencies. The below list

is the proposal of the Swedish government. The listed services emanate from all together 19 state agencies.

The fact that all Swedish municipalities are on the Internet with their own web sites gives the country a great opportunity to develop possibilities for the citizens to participate in the local democracy process. A lot of them have used this opportunity and started trials concerning different kinds of interaction with the citizens. From The Swedish Association of Local Authorities representing all municipal authorities in Sweden are fully supporting those actions. Its main aims are to:

- Support and develop the system of local self-government
- Defend local authorities' interests
- Promote co-operation between local authorities
- Assist local authorities through service and expert advice

On the e-Education field hundreds and maybe thousands of projects are running for the moment. Within the project ItiS, the National Action Program for ICT in schools, great effort from the Swedish Government is concentrated concerning primary and secondary schools. Even The Swedish Schoolnet provided by the National Agency for Education since 1994 is an important component in the investment. The Swedish Foundation for Knowledge is another important partner as well as all publishing houses producing content for schools. Have a look at the following websites and you are probably convinced about the capacity:

- ItiS - <http://www.itis.gov.se/english/index.html>
- The Swedish Schoolnet - <http://www.skolverket.se/skolnet/english/index.html>
- The Knowledge Foundation - <http://www.kks.se/aboutus/>

The e-commerce field is historically a very focused area in Sweden. In the public sector as well as in the private sector. Since years ago the Swedish public authorities: The Federation of County Councils, The Association of Local Authorities and Statskontoret are cooperating in the project SFTI (Single Face To Industry) aimed to organise e-commerce in the public sector. On the private sector the Confederation of Swedish Enterprise state in two different announcement the 26 of September: (<http://www.svensktnaringsliv.se/extern/start/index.asp>)

Sweden's capability to create political climate to stimulate diffusion of e-commerce

Swedes are positive towards globalisation - Sweden is one of the nations in the world who has a highly favourable opinion of free trade. This is confirmed in a report from the Confederation of Swedish Enterprise. The Swedes are also positive to globalisation. Very few Swedes view globalisation as a threat. The report is based on a survey, which has looked into the Swedes' attitudes towards globalisation. Temo, a company specialising in opinion polls, was commissioned by the Confederation of Swedish Enterprise to carry out the survey. The survey shows that 48 percent of Swedes have a positive or very positive attitude towards globalisation and only 10 percent perceive it negatively.

According to the survey, over 90 percent of the Swedes believe that international trade is important. Fifty-four percent imply that trade liberalisation is a better path to employment and prosperity than import restrictions. 'The Economist' has posed this very same question in 22 other countries. On the whole, these surveys show that Swedes, together with Taiwanese, South Koreans

and Hong Kong Chinese, have the most positive attitude towards free trade.

Sweden can reach the top again – "The New Trade and Industry" is the title of a brand new book from Confederation of Swedish Enterprise. A broad view of the new competition-assumptions, the new "playground", which are valid for people, corporations, organisations and politicians. In concentrate the book pronounce:

- The Information Technology is developed in a very fast mode but it is more than a bubble on the stock. The driver is the traditional industry and the service sector
- The economy is in a globalisation- and deregulation phase which means that even the politic is under competition
- Knowledge and non-material resources are getting more important
- Companies are organising in a new way

There is a great convergence between the private and public sector in Sweden concerning e-Commerce as one of the future drivers.

Finally a little curiosity noticed in an attempt to search information about eEurope from the portal VirtualSweden the answer was: **"Sorry, found nothing on eEurope"**.

7.15. UK

The UK government and its commitment to eEurope

At the time of the approval of the eEurope Action Plan, the UK Government was already marching forward with its own Information Society agenda. In September 1999 the Prime Minister published a strategy for eCommerce success in the UK called 'e-commerce@its.best.uk'. Government, industry and consumer groups were involved in implementing the 60 commitments set out in the report. In 2000 the government published the UK online report and set out a new, updated strategy to success with a broader focus. 'UK online'³² is run by the UK office of the e-Envoy. The aim of the office is to lead the drive to get the UK online, to ensure that the country, its citizens and its businesses derive maximum benefit from the knowledge economy.

To support this aim, the office has three core objectives:

- To make the UK the best environment in the world for eCommerce by 2002;
- To ensure that everyone who wants it has access to the Internet by 2005;
- To make all Government services available electronically by 2005.

The UK Government's programme of work is set out in the UK Online Strategy which includes 94 detailed recommendations, covering 25 commitments. These recommendations cover the five over-arching themes: Modern Markets; Confident People; Successful Business; Government Online and World Class Supply.

The UK Government welcomed the eEurope initiative when it was approved and is working with the European Commission and other Member States to implement the e-Europe 2002 Action Plan. In particular, the priorities for the UK are those aspects of the Action Plan dealing with completion

³² http://www.e-envoy.gov.uk/ukonline/ukonline_menu.htm

of the legal and co-regulatory framework for e-commerce, increased competition in communications markets, and promotion of skills and education.

The targets of the eEurope initiative are complementary to the UK Governments own approach and one of the recommendations set out in the UK Online Action Plan is to be responsible for 'implementing the e-Europe action plan'³³.

Support of the development of ICT Networks and High-Speed Infrastructure

In November 1999, Oftel, the Office for Telecommunications, issued a statement, 'Access to Bandwidth, Delivering Competition for the Information Age' which set out its decision to require British Telecom (BT) to make its local loop available to other operators. Oftel concluded that it was necessary to introduce competition in the provision of higher bandwidth services and the competition would lead to better services and more value for money. To achieve this result, in August 2000, Oftel mandated full unbundling of BT's local loop allowing other operators to rent space in a Local Loop Provider's (LLP's) exchanges, lease local access lines and upgrade them with DSL technology to provide a range of higher bandwidth services to end customers. In addition Oftel has required BT to provide its wholesale ADSL services to other Operators and service providers on non-discriminatory terms. These obligations are now being extended to Kingston Communication (Hull) Ltd another large UK operator.

British Telecom has been very slow at releasing its grip on local networks which are key to wiring up households with affordable high-bandwidth services. They themselves are investing 8 billion Euro (£5 billion) in the form of network extensions and enhancements. An important part of BT's broadband strategy is the rollout of Asymmetric Digital Subscriber Line – ADSL – equipment to UK exchanges and the provision of ADSL based services to service providers and organisations. Currently 50% of UK households (11.5 million households) are now connected to an ADSL enabled exchange³⁴. Very few other incumbent operators have yet been given to chance to be an affordable alternative to BT, although this may change in the latter half of 2001 as OFTEL will be in a position to announce new service providers.

Cable companies in the UK offer limited competition but only in big towns and unlike the telephone wire, cable companies are under no legal obligation to 'cable-up' areas of the UK which they may deem unprofitable – i.e. there is no universal service obligation.

Introduction of eHealthcare, eEducation and eGovernment

In eHealth, the NHS has recently produced the 'NHS Plan' which has the following objectives: "building services around citizens' choices", and an "NHS designed around the patient". The NHS Plan stresses the need to support well co-ordinated seamless services across "whole systems". At the beginning of 2001, the Government published the document 'Building the Information Core - Implementing the NHS Plan'³⁵. The vision of the plan focuses on a redesigned care system. In terms of policy, the Government set out its priorities as

- Provision of electronic information services;
- Electronic patient record;
- National or local applications.

³³ http://www.e-envoy.gov.uk/ukonline/progress/actplan/rec4_1.htm

³⁴ <http://www.bt.com/broadband/> August 2001

³⁵ <http://www.doh.gov.uk/nhsexipu/strategy/overview/sect02.htm>

The plan has targets to deliver the following:

- by March 2001 — 95% of GP practices and 25% of Trust clinical staff will have NHSnet connections and using NHS information services such as the National electronic Library for Health;
- by March 2002 — desktop connections for NHS clinical staff for basic e-mail, browsing and directory services, and roll out of NHS cryptography support services begins;
- by March 2003 — migration to national standards for e-mail, browsing and office systems completed and all NHS staff with desktop access;
- by March 2004 — major national payroll/HR systems implemented;
- by 2005 — a vibrant networked NHS, with booking systems in place, electronic transfer of records within primary care, all acute Trusts with level 3 Electronic Patient Records and first generation Electronic Health Records.

In eEducation, significant progress has been made in integrating new technologies into the education system. ICT training has been made available to all teachers and the national curriculum has been revised to put more emphasis on ICTs. Priorities for 2001 have included:

- ICT infrastructure in schools, further and higher education as part of the National Grid for Learning;
- funding for ICT skills for educators;
- the establishment of City Learning Centres in major city schools to meet the needs of pupils and adults in the community for connections, infrastructure, content and training;
- stimulating high quality online educational content;
- working with the Digital Content Forum to introduce short-term ICT work placement programmes for 16+ students;
- development of the eUniversity with the aim of establishing a globally-competitive provider of higher education programmes via virtual distance learning.

In terms of lifelong learning, the UK Government invested in the development of the University for Industry (Ufi) in 2000-2001. By 2003, the Ufi aims to have 2.5 million people and businesses using its learndirect³⁶ services in England, Wales and Northern Ireland. The Government are also offering free ICT taster sessions to unemployed people through the UK online employability training scheme and 80% discounts on computer literacy courses through Individual Learning Accounts.

In Wales, the National Assembly's £18 million Education ICT strategy builds on the continuing investment in the National Grid for Learning and will provide school and adult learners with greater access to ICT. It should provide a real boost to Lifelong Learning and social inclusion. The Wales Digital College (WDC) is working closely with colleges and other agencies in Wales to enable viewers with digital television to access interactive on-line learning through their sets, as well as information about other learning opportunities.

The Ufi has opened some 42 learndirect learning centres, with 9 more due to come on line in Wales in August 2001 and a further fifty likely to be established by 2002.

In Scotland, the Scottish Executive is looking at how to provide broadband links to all Scottish schools, so that pupils and teachers everywhere in the country will be able to benefit from equal access to e-mail, videoconferencing, high-quality educational materials, and other resources and services.

³⁶ www.learndirect.co.uk.

The eGovernment strategy in the UK is helping departments and agencies, central and local government to cooperate to deliver services in ways which make sense to the consumer, and by forming partnerships with innovators in the private sector who can help find new ways of meeting changing patterns of demand.

In March 2000 the Prime Minister announced that the target for 100% of government services to be online would be brought forward from 2008 to 2005.

The ukonline.gov.uk portal was launched formally on 19th February 2001 as the principal entry point to online government information and services. The portal had initially gone live to the public as a test site in early December 2000, and user feedback was used to improve the portal prior to the formal launch.

Three initial departments (Inland Revenue, HM Custom & Excise and DEFRA) began transacting via the Government Gateway in March 2001.

Content on the portal is organised around the needs of the citizen, to make dealing with government as easy and seamless as possible. Building on recommendations in the Modernising Government White Paper³⁷, information is focused around 'Life Episodes', which enable the user to access all the information they need about a particular event without having to understand the workings of government or departmental delivery structures.

There are currently nine Life Episodes:

- Moving home
- Going away
- Dealing with crime
- Having a baby
- Death and bereavement
- Learning to drive
- Looking after someone
- Looking for/getting a job
- Pensions and retirement

Two further life episodes are due for delivery in the autumn:

- Starting/changing school
- Moving on from school.

Plans are being made to migrate services previously provided by open.gov.uk to ukonline.gov.uk. This will bring up to 400,000 additional page impressions a week to the ukonline.gov.uk service.

Development of the 'back office' is a priority for UK Government to enable joined-up electronic service delivery. Underpinning the eGovernment strategy are a number of policies which establish the foundations upon which to establish a full capability to deliver all Government services electronically by 2005. The following key back office areas are covered; Authentication; Interoperability, Metadata, Security, Smart cards, Privacy, and Electronic Records Management.

³⁷ The Modernising Government White Paper, March 1999 established the Framework for the Information Age Government (IAG)

Stimulate diffusion of eCommerce

For eCommerce, The UK Government research suggests that many businesses, small and large, find it difficult to formulate the appropriate strategic response to the e-commerce challenge, or to know the best way of implementing a strategy given the pace of technological development. The Government's strategy is focused on providing:

- to small businesses, the proactive advice and support they need; and
- to larger firms in the corporate sector, an environment which encourages rapid dissemination of e-commerce knowledge and best practice.

The Government is already helping SMEs rise to the e-business challenge through the expert, impartial, jargon-free advice available through UK Online for Business, a programme aimed at fostering awareness of ICT best practice in small businesses, addressing skills and training needs and addressing barriers to the take up of new e-business practices and technologies. The Government also launched national e-commerce awards to raise the profile of eCommerce amongst SMEs.