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02.3.1 Description of the initiatives and actions

The initiatives in the business and commercial sector (including the creation of content) have a twofold objective: firstly, to ensure that information and communication technologies are fully assimilated and used by the business sector, and secondly, to ensure that the local industries of the Information Society Technologies sector and the content creation industry (multimedia and audiovisual media) attain a strong position of leadership. In parallel with this, the achievement of these aims will imply that changes have occurred in the business culture, the way of working and the profile of professional workers.

The actions in this area are supported by regulating measures that favour a competitive environment and generational change. The regulating measures will be implemented as part of the actions within the transversal area.

The CONDRINET¹ survey identifies four priorities for European business:

- Implantation of the extensive use of telecommunications in order to transform the business process.
- Creation of "flexible" organisations that are quick to "learn", with motivated workers who are familiar with Information Technologies.
- Collaboration with all types of organisations in order to establish appropriate regulations and standards.
- Attracting the attention of clients and maintaining it through the offer of products and services orientated towards the interests of the community.

Those technologically powerful SMEs will have to play an essential role in the design of new products and services. Indeed, it is the figure of the SME that, as it introduces innovation and stimulates demand, will ensure that the scientific and technological potential of Catalonia is converted into economic success. The three strategic lines here are:

- A policy of support for companies that offer Information Technology products and services, considering the development of e-commerce as another ICT industry.
- Promotion of the creative sector of multimedia and audiovisual content and content produced by new entrepreneurs.
- Adaptation of the business sector to change: businesses as the hope for the future.

This policy provides support for actions designed to strengthen the corporate production sector of the industries of the Information Society. This sector not only encompasses the Information and Communication Technologies (ICT) sector, but also includes companies

1. Content and Commerce-driven Strategies in Global Networks. European Commission. DGIII/E www.echo.lu/info2000

that produce electronics, computers and all kinds of hardware for telecommunications, computing and the audiovisual industry, in addition to companies from the new emerging sector of electronic commerce and the Information Society sector as a whole.

The following graphs show comparisons of one of the most relevant indicators of a country's production potential in the future Information Society.

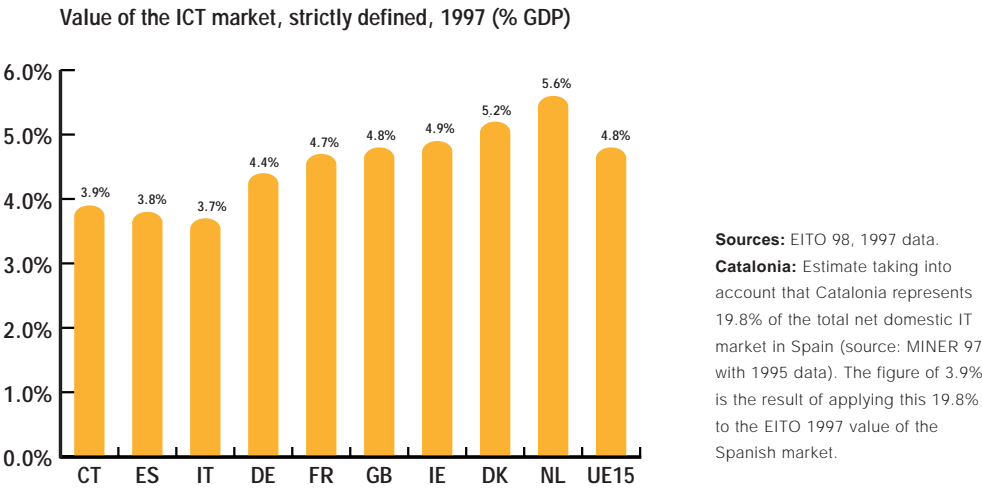


Figure 3. This graph shows the good position of Catalonia in the context of the IT market in Europe. ICT, as defined in a strict sense, echoing the definition of EITO, include the Information Technologies (computing) sector and the Telecommunications sector (operators). Therefore, all consumer and professional electronics, a very important sector in Catalonia, are excluded.

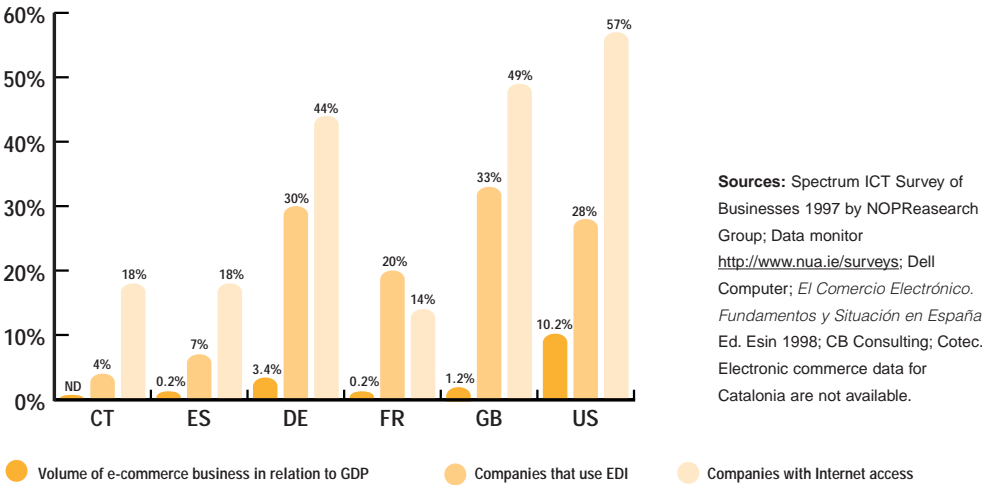


Figure 4. Volume of e-commerce and penetration of Internet and EDI in companies.

Initiative 1

Stimulation of demand.

The aim of this initiative is to stimulate the demand for products and services related to Information and Communication Technologies (ICT) by means of two types of actions. The first group of actions aims to create an environment that stimulates demand by generating new customs and suitable economic conditions, while the second group seeks to promote new products that will encourage consumption and users' needs for attractive and competitively priced ICT products.

Among the first group of actions are a series of initiatives to be undertaken by the Administration, which would consist in the Administration itself publicising its procurement plans for equipment and services related with Information and Communication Technologies. It would even reward the selection of suppliers according to their access and use of telematic tools. Finally, it would be necessary to reach a stage where public procurement via Internet was mandatory.

Actions:

- Creation of the cultural, infrastructure, economic and regulatory conditions that will increase demand for ICT products.
- Publication on the Internet of the procurement foreseen by the Administration in the short and long term, so that public sector ICT investments are made known to the ICT business sector, and the Administration may have a dynamic and stimulating effect on demand. Moreover, it will also be necessary to reinforce the fact that the administrations can in some way reward those suppliers who offer electronic procurement.
- Fostering the development of new products and attractive and innovative services for the consumer.

Agents:

Department of Industry, Trade and Tourism, public and private sector, CSI (Commissioner's Office for the Information Society), LOCALRET (Local Consortium for the development of telecommunications networks and new technologies), operators.



Initiative 2

Promotion of the Technology industries of the Information Society in Catalonia.

The aim of this initiative is to deploy a series of measures to strengthen the creation and production of companies that specialise in Information and Communication Technologies (ICT).

There are essentially two elements that promote change in this field: on the one hand, easier access to capital and the development of nurseries for ICT companies, and on the other hand, the promotion of a new model of company. To these elements we may also add tax incentives.

It is essential for Catalonia to become a leading force in the production of ICT, and this objective can only be attained if capital is made more available. It is necessary to establish suitable conditions for financing with Venture Capital for ICT companies and to promote start-ups led by graduates who are experts in Information and Communication Technologies. The objective is to double venture capital investments every year to the year 2003, when levels would reach those of countries such as Holland. At the same time, ways of creating suitable conditions whereby "Catalan ICT capital funds" can be made available will be studied. Therefore, it is necessary to complement financing initiatives with stock market actions, in as far as it is possible.

Within the package of tax incentives for companies that have invested in ICT (or in re-engineering processes and ICT-oriented training), it is necessary to define tax regulations that allow the capital gains obtained by creators of new businesses to be deferred, when these gains are reinvested in companies that have been created in the last six years. This is a good system, similar to the "Business Angel" system in the U.S.A., because businessmen that have successfully created a business in the past can help other entrepreneurs who are inexperienced. This system has been employed within the framework of the Strategic Plan for the Information Society in France.

Furthermore, within the group of actions designed to promote an environment of growth, it would be advantageous to promote the fact that the business sector is equipped with infrastructures with broadband services (cable or alternative technologies) in certain locations and suitably equipped industrial parks. In this respect, it is recommended that the land should be reclassified in planning terms and redefined for service companies, in order that they may compete for residential land. This would promote a concentration of multimedia companies on urban land, while it would also provide incentives for other

sites. In short, it should redound to the achievement of territorial cohesion.

Actions:

- Availability of capital: capital investment will be promoted by activating the possibilities of the venture capital management companies for their investment in Catalonia in the form of "seed capital", thereby instilling investors with natural confidence in order to promote private investment (business angel). Thus the following factors are also needed:
 - Institutional participation in IT Forums for European investors as co-organisers.
 - Encouragement and support of entrepreneurs with respect to the means and place of access to capital.
- Establishment of European consortiums in Catalonia. In this respect, it would be beneficial to create an Investment Forum for European business projects with its headquarters in Catalonia. This Forum may coexist as an internal development within the existing Catalan management companies.
- Specific tax treatment for the creation of ICT companies and for investments by companies in ICT.
- Establishment of an advanced research Network in the design and production of ICT products, with the joint participation of public and private researchers. This network will be available to the business sector as an additional infrastructure, and will be the result of the R & D initiatives of the Strategic Plan.
- Sharing of existing technological platforms, which can act as catalysts or promoters of new technologies. For example, BCN Activa, Infopime, ESA, etc.
- Provision of advisory services and a policy of support for new ICT entrepreneurs.
- Award of prizes for the best business initiatives relating to Information Society technologies.
- Review of the land in planning terms: adjustment of land classification to the new reality of ICT business, a context in which residential land can offer new potential for technological services companies.

Agents:

Department of the Economy and Finance, financial sector, Department of Industry, Trade and Tourism, private sector, television corporations, CSI, LOCALRET, local entities, multimedia sector, chambers of commerce.

**Initiative 3****Promotion of the content creation business sector.**

In order that the emergent sector of businesses that specialise in the creation of content may prosper in Catalonia, appropriate measures must be established for the microcompanies of which this sector is composed, as well as for the large companies in the audiovisual sector. It is a question of finding the best way to bring together the agents who will be players in the very near future in what is effectively the most important sector, due to the number of people that it will employ. According to a survey by CONDRINET of the EC, the audiovisual sector will grow 75% in the next 4 years, creating 300,000 new jobs in Europe.

On the other hand, there will be prolific growth in the creation of multimedia content, as a result of electronic publishing of the digital press, the leisure sector (interactive games) and content for training and education.

In order to be successful, this initiative requires a series of measures that will serve to strengthen the sector.

Actions:

- Definition of tax incentives for ICT investments and for adapting R & D to the multimedia sector.
- Creation of technological innovation centres of broadband multimedia services to act as catalysts with respect to the regional content sector. These centres of excellence (which will have a highly dynamic effect on the sector) will be responsible for the creation, supply and export of content in the Information Society as centres that integrate and support the Catalan SMEs in the content sector. The ultimate success of this objective lies in a reconsideration of the academic training of the professionals of the future, who for practical purposes will be free-lance workers that create their own jobs. In this context, attention must be focussed on the problem of cultural change at both business and academic levels.
- Co-ordination of the private and public sectors for the digitisation and creation of cultural, educational and tourism-related resources, whose availability will be essential. Every year, concerted action will be taken in each of these areas (tourism, education, culture/leisure).
- Creation of stable links between the educational projects of the Administration and companies in the content and ICT sector with a view to the future "interactive school". These agreements will represent a volume of business to be defined by both parties every two years.
- One of the large business areas for content will be the Latin American market. In this respect, promotional endeavours will focus on the creation and export of content produced in Catalonia and conceived from the outset as material for export. Awards will be given to the best initiatives in this field.

Agents:

Department of Culture, Department of Industry, Trade and Tourism, chambers of commerce, private publishing sector, various administrations, CUR (Commissioner's Office for Universities and Research), Universities, CSI, LOCALRET.

Initiative 4**Convergence of the audiovisual and multimedia sectors.**

Fostering of the convergence between the traditional audiovisual sector and the telecommunications sector on the one hand, and the audiovisual and multimedia sectors on the other hand. This initiative implies a reconsideration of business and the types of services and final products that the interactive audiovisual market will produce in a local market, but employing global strategies.

In order to attain this objective, agreements must be established between the cable and satellite operators, the suppliers of video servers, local television broadcasters, the suppliers of multimedia and audiovisual content and the administrations.

Actions:

- Promotion of the structure of audiovisual corporations that are influential in Catalonia, as a future commitment to the audiovisual and communication sector. On the other hand, support of the convergence between the present structure of television broadcasters in Catalonia and the applications derived from new technologies, in particular, Internet. An example would be to encourage the new operators to incorporate the content generated by local television broadcasters into the programming of certain channels. Advantage must be taken of the generation of local content by television broadcasters with a limited territorial range to complete the information available on the Internet.
- Establishment of an emblematic project (audiovisual and interactive) with a high profile, which will serve as a model.

It should also be noted that the local television broadcasters play a key role in the training and professionalisation of the future experts required by the sector.

Agents:

Department of Cultural Affairs, Catalan Radio and Television Corporation, television broadcasters, local entities, cable operators, CSI, LOCALRET, chambers of commerce.

**Initiative 5****Promotion of electronic commerce.**

The aim of this initiative is to boost the volume of electronic business of companies in Catalonia, in order to attain a 200% increase in turnover during the first year, and in this way reach the European average in 2003. The attainment of this goal will involve a series of promotional tasks, in addition to the application of tax and legal measures, which will be deployed in the area entitled THE FRAMEWORK OF THE INFORMATION SOCIETY as part of the group of initiatives that form the regulating framework of the Information Society.

The success of this objective essentially lies in the competitiveness of the business world, insofar as companies consolidate both business-to-business (B2B) transactions and a competitive presence in sales to the end consumer via the Internet. It will be necessary to have an appropriate business model for the new millennium, with the support of a package of tax and legal measures that promote electronic commerce and the presence of Catalan companies on the Internet.

Actions:

- Circulation of information to companies concerning the advantages of e-commerce and electronic transactions: it is necessary to inform and train companies in sales techniques, marketing and client support, concepts that are very different from those of traditional commerce, since these techniques must be adapted to many languages and other markets.
- Creation of (new) laws and customs, electronic cards and cash, and a legal framework that protects network transactions.
- Promotion by the Administration of electronic interchange procedures with its suppliers.
- Co-ordination with the corresponding associations and employers' associations in order to promote the introduction of standards for electronic data interchange in a Web environment into business-to-business (B2B) transactions.
- Support of clusters of combined initiatives in order to elaborate complex projects, in which only the synergies of the different players make it possible to create a sustainable trading centre. In such projects it will be necessary to introduce virtual trading centres supported by the participation of banks, television broadcasters and the corresponding sectors, as well as the content suppliers.
- Promotion of multicultural webs and on-line product and commercial services search engines, helping companies in two ways: they will gain a global presence on the Internet and businessmen can find the "Virtual Trade Fair" needed for their sector.
- Implementation of a series of actions and agreements that provide Catalan e-com-

merce with the logistics companies needed by the sector, at both a local and a global level. The success of electronic sales will lie not so much in price considerations as in the integral quality of the service, that is to say, in the fact that it is easier to gain access to a Catalan product or service than to its counterpart from another country.

- Promotion of virtual platforms that make it easy for the user to purchase and gain access to tourism and cultural resources of Catalonia, given the importance of the tourism and content sectors. Action here will involve agreements between cartography, tourism and hotel companies, tour operators, air, land and sea transport, municipal councils, etc.

With regard to the legal Framework that will encourage e-commerce and remove legal obstacles, these actions are defined in the area of the Strategic Plan entitled THE FRAMEWORK OF THE INFORMATION SOCIETY.

Agents:

Business Associations, Chambers of Commerce, Mixed commission for the establishment of the Legal framework of the Information Society, business sector, financial sector, television broadcasters, **CSI, LOCALRET**, local entities, etc.

Initiative 6

Adaptation measures for the business world.

Action on this front is essentially based on the continuous training of both management and non-management personnel, in order that change may be assimilated and the company and its workers adapt to the new model of business: part-time work, flexible tasks, team work, teleworking and a global market.

The implementation of training programmes for special groups in order to improve their knowledge or to impart knowledge should take the form of a permanent training programme that motivates the proactive participation of employees with respect to such continuous training. Specific training in technologies must be established for each individual sector.

It is also necessary to create confidence and "catalytic" plans around the large business associations and federations, in order to define, reach an agreement on and stimulate the



use of e-mail and electronic data interchange, using standardised sector-oriented web environments, through agreements and initiatives between companies and the leading employers' associations. The essential idea is to extend simple electronic transaction tools with WEB technology that have an immediate impact at a sectoral level (as a promotional platform for business-to-business [B2B]), an example being telematic procedures through unions and associations (electrical fitters, car repair shops, industrial unions, etc.).

In general, the objective is to introduce programmes that will boost the skills and capacity of employees within the new Information Society, and to implement pilot projects to publicise and exemplify the use of ICT in the business environment.

Actions:

- Prioritisation of public funds for continuous ICT training of professionals.
- Promotion of training in Information and Communication Technologies in companies:
 - Training for Catalan executives through agreements with business schools.
 - Training for professionals from different sectors.
 - Retraining of employees in ICT.
 - Grants for SMEs for training personnel in ICT.
- Sensitisation of the business sector to the new business model: e-commerce, teleworking, customer service, new management, etc.
 - Circulation of excellent public and private management experiences.
 - Creation of a forum to spread information concerning public and private experiences (best practices) with feedback to companies in the sector.
 - Spread of information and implantation of e-mail and WEB-EDI into Catalan companies, and publicisation of model pilot projects.
 - Agreements with business organisations to promote and co-ordinate projects.
 - Provision of tax incentives for ICT investments.

Agents:

Chambers of Commerce, FORCEM (Foundation for Continuous Training), Department of Industry, Trade and Tourism, CIDEM (Business Information and Development Centre), Department of Labour, employers' associations (Foment del Treball, PIMEC-SEFES, etc.) and trade unions.

02.3.2 Chart summarising the initiatives and actions

INITIATIVES	ACTIONS	AGENTS
Initiative 1 Stimulation of demand	<ul style="list-style-type: none"> • Creation of the cultural, infrastructure, economic and regulatory conditions that will increase demand for ICT products. • Publication of public planning and procurement via Internet. • Spread of marketing strategies to strengthen demand for ICT products. • Fostering the development of new and innovative products and services. 	Department of Industry, Trade and Tourism Public and private sector CSI LOCALRET Operators
Initiative 2 Promotion of the Technology Industries of the Information Society in Catalonia	<ul style="list-style-type: none"> • Promotion in Catalonia of venture capital and particularly "seed capital" promoted by private investment and business angels. <ul style="list-style-type: none"> - Institutional participation in IT Forums for European investors as co-organisers. - Encouragement and support of entrepreneurs with respect to the means and place of access to capital. • Promotion of the establishment of European consortiums in Catalonia. • Specific tax treatment for the creation of ICT companies and for investments by companies in ICT. • Establishment of an advanced research Network, of innovation and transfer of technology in ICT products: university-business sector. • Reinforcement of the present instruments of industrial promotion and services (ESA, Infopyme, Barcelona Activa, etc.), including promotion of physical and virtual nurseries of ICT companies. • Provision of advisory services and a policy of support for new ICT entrepreneurs. • Award of prizes funds for the best business initiatives relating to Information Society technologies. • Review of the land in planning terms: adjustment of land classification to the new reality of ICT business. 	Department of Economy Financial sector Department of Industry, Trade and Tourism Private sector Television corporations CSI LOCALRET Local entities Multimedia sector Chambers of commerce
Initiative 3 Promotion of the content creation business sector	<ul style="list-style-type: none"> • Definition of tax incentives for ICT investments and for adapting R & D to the multimedia sector. • Offer of business opportunities to new entrepreneurs. • Creation of broadband multimedia service centres to act as catalysts of creation, supply and export of content and services in ICT. • Co-ordination of the public and private sectors for the digitisation and creation of cultural, educational and tourism-related resources, and for the availability of these resources. • Creation of stable links between the educational projects of the Administration and the companies in the content and ICT sector, with a view to the future "interactive school". • Annual awards for the best initiatives in the export of content. 	Department of Cultural Affairs Department of Industry, Trade and Tourism Chambers of commerce Private publishing sector Various administrations CUR University CSI LOCALRET



Initiative 4 Convergence of the audiovisual and multimedia sectors	<ul style="list-style-type: none"> • Promotion of the local TV broadcasters and the production of local content. • Definition and implementation of an emblematic project in the interactive audiovisual field. 	Department of Cultural Affairs Catalan Radio and Television Corporation Local entities Cable operators CSI, LOCALRET Chambers of commerce
Initiative 5 Promotion of e-commerce	<ul style="list-style-type: none"> • Support in Catalonia for the creation of advanced learning centres in e-commerce. <ul style="list-style-type: none"> - Training, information and spread of e-commerce; promotion of tools, a protective framework for electronic payment transactions, sales and marketing techniques, virtual trading centres, etc. - Promotion of multilingual and multicultural Webs and on-line product and commercial services search engines, helping companies to gain a global presence. • Promotion by the Administration of electronic interchange procedures. • Co-ordination with the associations of different sectors to promote the introduction of WEB-EDI into business-to-business (B2B). • Support of clusters of combined initiatives in order to elaborate complex projects: television + banks + content companies. • Motivation of the restructuring of the logistics operators sector in a manner that is consistent with the requirements of e-commerce. • Promotion of e-commerce for the content and tourism sector. 	Business Associations Chambers of commerce Mixed commission for the establishment of the legal framework of the Information Society Business sector Financial sector Television broadcasters CSI LOCALRET Local entities
Initiative 6 Adaptation measures for the business world	<ul style="list-style-type: none"> • Prioritisation of public funds for continuous ICT training of professionals. • Promotion of training in ITC in companies: <ul style="list-style-type: none"> - Training for Catalan executives through agreements with business schools. - Training for professionals from different sectors. - Retraining of employees in ICT. - Grants for SMEs for training personnel in ICT. • Sensitisation of the business sector to the new business model: e-commerce, teleworking, customer service, new management, etc. • Circulation of excellent public and private management experiences. • Creation of a forum to spread information concerning public and private experiences (best practices), with feedback to companies in the sector. • Spread of information and implantation of e-mail and WEB-EDI into Catalan companies and publicisation of model pilot projects. • Agreements with business organisations to promote and co-ordinate projects. • Provision of tax incentives for ICT investments. 	Chambers of commerce FORCEM CIDEM Department of Labour Employers' associations (Foment del Treball, PIMEC-SEFES, etc.) and unions

02.3.3 Co-ordinator, moderators and members

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