

HORIZONS OF AN INFORMATION SOCIETY FOR ALL
Guidelines and Proposals for Equality of Access and Social Inclusion Policies

This paper was written by José Manuel Morán and Antonio Jiménez Lara, who drew on the ideas and proposals contained in documentation referred to herein.

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IDEAS FOR A NEW VISION OF THE SOCIAL INCLUSION

The growing and spectacular development of the Interactive Society is fomenting the idea, or rather, the vision, that the unending technological changes taking place will also lead to social, cultural, and personal life-style changes that will open to all citizens the possibility of having within their reach the opportunities offered by the Digital Society. Such an assumption, however, will be difficult to fulfil, and more so for each personal circumstance, if the procedural foundations needed to ensure that the technological potentialities bear their fruit, are not laid beforehand, and are not accompanied by the complementary standards and measures that would ensure that the Information Society is a society for social inclusion and the defense of human diversity.

The following pages were written from the viewpoint that the nascent Information Society, conceived as a society for all, is drawing nearer, as well as from other, less optimistic perspectives. Where it is perceived that it is not enough to make declarations or assumptions, it is considered necessary to appeal to the good will of persons before the desired social inclusion can become a reality. At the same time, it will be necessary to continue insisting on the need to change standards and to make innovation and Design for All the kickstarter to move technological change in the direction of benefiting everyone. Moreover, from the standpoint of current realities and proposals it is possible to infer that, even when the changes in the standards and innovation are directed towards the inclusion of essential conditions for integration, it is also necessary to develop public-sector policies, improve good practices in pursuit of accessibility, and plan how the Information Society for all must be constructed.

This paper, therefore, brings together references that talk about policies under way, about examples of advanced countries when it comes to considering accessibility as something inalienable for any person, and about the expectations being harboured with the rise in scientific-technical opportunities. It also reports on how, from the different European institutions, and with the backing of the

proposals from disabled persons, new horizons are opening up for social inclusion. That is why this paper does not diffuse how much more is left to be done, which unfailingly entails having the aspirations of the disabled recognized by the standards and good practices of the public administrations, the business community and the society as a whole.

It was therefore considered appropriate to bear in mind that the opportunities that exist at present must be defined beyond what the markets dictate, in order that they may act to underpin social cohesion and help ensure that no person is excluded from the Knowledge Societies. Even though to accomplish this would mean participating, from the leadership of the disabled themselves in guiding technical development, in the formulation of policies that transcend the mere trends of the lucrative sectors and which foster legislative measures that encourage working for social inclusion and diversity.

Much of these considerations reside in the expectations that the technological changes have raised in the sphere of disability. And they also reside in the proposals, programs and resolutions that are being formulated in the European Union and in the more advanced countries. Because both the disabled and the public authorities and the other citizens are increasingly more aware that when faced with such significant structural changes as those that are perceived in the development of the Digital Society, there are also many risks which the more vulnerable groups see may seriously affect them and subject them to new exclusions. This compels one to reflect beforehand on global responses and on securing the possibilities of Design for All and of technologies at the service of social inclusion.

Such responses are being outlined, as will be seen later in the references mentioned in the pages that follow, through political proposals that must start to be applied in general terms, while at the same time changing cultural prejudices that try to sustain the belief that competitiveness in the new era is at odds with social inclusion and the participation of all per-

sons in the construction of the new economic and social realities. But today more than ever it is necessary to eradicate such prejudices if the Information Society for all is to be implemented through a combination of good practices and diverse policies. The latter would combine the proposals of Design for All with others that would permit a configuration and instrumentation of specific centers of excellence, that would serve as models and as a way to spur generalization in all spheres of active and civil life.

This means having to adopt, particularly on the part of those in charge of the public administrations and the economic and social players, the conviction that Design for All and universal access are no longer just an extension of the accessibility concept, but that they have gained a new dimension particularly suited to helping and ensuring the full participation of disabled persons in all social spheres. This means that the demand of Design for All must not be limited only to the conditions of goods and installations, but rather, that it also extend to the manufacture of products and the provision of services in general, whether they are offered to all citizens by way of the market, or whether they enter within the sphere of action of the public authorities.

On a different level, both the updating of the proposals known now beforehand, and the achievement of successes in the field of universal service would be useless if they did not have as a prerequisite the mobilization and active work of disabled persons. The latter sector must act and influence the public administrations and the society in a coordinated and unitary way, representing disabled persons with a single voice.

In order to make possible the foregoing and facilitate the participation of users, the European Union should immediately provide for appropriate legal instruments that would guarantee the principles of Design for All and universal access and prohibit any discrimination for this or any other reason that may arise as a result of constant technological change.

Such actions should be supported so that the movement of disabled persons' associations may continue to actively help the broadest possible repertory of personal and social situations in which disabled persons suffer discrimination on account of design (transport, education, new information and communication technologies, financial prod-

ucts, social security, etc.). Starting from this, it is then feasible to propose the adoption of legislative measures, to set up funded action programs, and to carry out supervision and control measures to ensure their adoption and implementation by the public administrations, economic players, operating companies, etc.

From these premises the proposals designed to invigorate the implementation of the Interactive Society for All must transcend current manifestations that talk about the generic goodness of the technologies but have little influence on attitudes or on the adoption of good practices that would facilitate social inclusion in the digital age. It is therefore not a question of idle speculation that the new horizons of the Information Society for All be grouped around six main themes as follows:

1. The theme of Design for All, consisting in obtaining the help, support and encouragement of the European Union, the public administrations, the economic and social players, and civil society for the generalization of Design for All in all fields of economic and social activities.
2. Development of innovation for the inclusion of disability, so that the R&D processes incorporate projects designed to find solutions for inclusion and also for the development of enabling and assistance technologies.
3. The theme of good practices of the public administrations and the economic and business community, adopted as an unavoidable standard for the acquisition of accessible goods and services and the provision of equitable public services for all. Such practices are considered an essential tool for invigorating the markets, stimulating the implementation of Design for All and achieving generalized accessibility of goods and services.
4. In order to ensure that the above areas for action have decisive operational efficiency and effectiveness, it is equally essential to develop another area consisting of reinforcing the participation of the users as guarantors of accessibility and as promoters of mechanisms and procedures for updating the accessibility requirements.
5. This implies, in addition, the need to develop a policy of support for the organizations that represent disabled persons, so that the latter may lead the processes of digital literacy, as well as specific

promotion policies, and be generators of initiatives that would underpin accessibility.

6. Finally, it is essential that updated standards be developed that would revise those already implemented as well as lay the foundations for how the new ones are managed, so that accessibility may be the unavoidable condition in all of them, and at the same time, draw up timetables for carrying out appropriate transposals that would make the Interactive Society for All a reality by the year 2004.

These main ideas go beyond the application of technological innovations in isolated pilot projects, because they require that the technical advances be inserted in a web of policies and good practices that aim to avoid day by day the risks of any digital divide. Although in order to do that it may be also necessary to develop specific centers of excellence, directed towards innovation, certification of accessibility, education and practices for social inclusion. Or that the member states themselves develop, within their respective Inclusion Plans, specific plans for accessibility, reporting on an annual basis what percentage of services have been made accessible.

This would allow, in turn, that in the Employment Plans, as well as in the initiatives for online education or any application of the Interactive Society, that lines of action be developed that would permit disabled persons to participate in any of them in the same proportion as the other citizens. Only in this way can the proposals presented in a speech start to become a reality, increasingly taken on by everyone, to the benefit of an Interactive Society for the integration and active participation of all those who comprise it.

FOREWORD

This paper was written with the aim of providing a set of thematic references for use in the European Conference of New Technologies and Disability: An Open Market, to be held in Madrid on February 6th and 7th, 2002.

This conference, which forms part of the program of activities of the Spanish Presidency of the European Union, has been programmed with the objective of taking stock and boosting projects designed to reinforce e-accessibility, design for all, the creation of specific centers of excellence, and in short, of securing, through specific actions and initiatives, the Information Society for All.

This aim turns on two complementary premises. One of them focuses on the opportunities offered by technological development, and the other deals with a strengthening of the initiatives directed towards social inclusion in all environments of active and civic life. The conference therefore seeks, on the one hand, to tackle the issue of technical, economic and social potentialities of the new technologies, embracing both enabling technologies, which make possible for many disabled persons the ability to carry out an independent life, as well as technologies designed for all, which foster social inclusion.

In addition, the conference attempts to take a closer look at how these tools are implemented in the daily lives of disabled citizens, in order that they facilitate total inclusion in educational systems, labor markets, leisure and cultural activities, and, in the last analysis, full participation, under equal conditions, in social and civic life. This is done with reference to the affirmative support of operating companies and manufacturers of technology and services for the Information Society, so that the business world of the new technologies is actively involved in the process.

The conference also has the purpose of emphasizing that the defense of social inclusion of disabled persons is a paradigm of the defense of diversity. Laying the foundations to avoid info-exclusion of disabled persons means helping to avoid the info-

exclusion of the elderly, of ethnic and cultural minorities, and of citizens with disabilities that occurred unexpectedly, among many other social groups. Aspects that will be studied include legislative changes needed to address these issues, the development of good practices and the political commitments that must be undertaken so that public action can become a reference point and stimulus for promoting social inclusion in private-sector projects and initiatives as well.

Finally, the conference attempts to serve as a means of presenting the European Union as an example of a social model capable of fostering both the defence of human diversity and the value of promoting the social inclusion of all citizens. A model that should be open to cooperation with other peoples as part of European policy to work in favor of protecting human dignity in all regions of the planet.

The document following this brief introduction was prepared from numerous reports and references that show evidence of the European willingness to continue advancing towards an Information Society for All. Even though to accomplish this it may be necessary to go beyond the current circumstances and proposals in order to promote others which stress the development of good practices, carrying out essential legislative reviews and changes in order to achieve it, as well as the development of new ways of carrying out the business of the public administrations, civil society and the economic and social fabric of society.

THE INFORMATION SOCIETY AS AN OPPORTUNITY FOR ACCESSIBILITY AND INCLUSION

Ever since talk started, in the last decade of the twentieth century, on the issue of the so-called Information Highways, which in turn gave rise to the concept of the Information Society, hardly a day goes by without some reference to the potential advantages inherent in every new technological innovation and change. Nor is there a dearth of enthusiastic speakers ready to point out that behind each of these mutations lie transformations relevant to daily market transactions and to the social habits and affairs that make up collective coexistence. However, it does not follow that such advances are within the reach of everyone or that they have been designed to meet the demands and expectations of the full range of human diversity. Moreover, not a few voices are alerting society about the possibility that behind the new technological horizons there may be a dual universe in the process of formation, in which some persons are able to multiply their capabilities, while others find that the new technologies built additional barriers to their full participation in the social and economic life.

In the last decade, proclamations were made heralding a future full of possibilities for all, and predicting that such changes and innovations were avenues for the development of new business models and platforms which would serve as liberators from the limitations imposed by distance and personal circumstance. But it also became clear that the Information Society would bring new, less favorable, consequences that would arise when such advances became subordinate to the requirements and dynamics of the markets.

However, it would be enough if, in the development of the Information Society, as well as of its devices and applications, there were an awareness that some of the requirements now seen as demands deriving from the needs of minority groups are also be useful for other, more broad groups, so that the Information Society for All could be seen as a feasible and profitable proposition, acting to improve social cohesion and representing a positive asset based on the principle of products and services designed with all groups in mind, for ease of use,

ergonomics and utility.

When market dynamics require, to the annoyance of all, that the frenzied rush of successive innovations be oriented only towards the largest possible segments of the market, they are pushing to the sidelines the demands of the disabled and the elderly. This serves to reinforce precisely those barriers that avoid such groups enjoying, to the extent that they may, both the fruits of innovation, and the new opportunities arising through the media and services of the Interactive Society, which is transforming not only the ways in which business is conducted, but the work itself, in addition to training processes, leisure activities, how people communicate with each other, and how they participate in society.

In order to overcome these unsuspected digital barriers, some believe that it is enough to appeal to the need to cover all segments of the market in order for product designs to become universal. Then there are those who think it is enough to generalize the participation of users in the design process in order to guarantee access and avoid excluding anyone from the technological future, the arrival of which is perceived as imminent every day. But there are others, perhaps more prudent and better informed, who are realizing that it is not enough to call for designs made for everyone, or to suggest the participation of users when conceiving products in order for applications to become universal and accessible.

It is from this perspective that the opportunity to develop guidelines, programs and policies for equal access to the Information Society must be considered, in order to ensure that such a society will be one of social inclusion and one which fosters the development of human diversity. In order to achieve this it will be necessary to rely on new applications and technical advances, but above all, on the willingness of the different players to overcome the digital divide. This can be done through the development of programs and policies that put technology at the service of all people, and by keeping those technologies from becoming a source of barriers and limitations that exclude from

the future Knowledge and Interactive Society many persons who witness the continual parade of scientific-technical novelties, with the subsequent development of economic, cultural and social applications, or the emergence of new cultures and collective intelligence that open a huge number of opportunities for personal growth, economic well-being and socio-labour development for those who have access to the new advantages, but which can be inaccessible for many citizens, among whom are those with disabilities.

There is no doubt that the incorporation of the expectations and aspirations of all citizens, including those with disabilities, in the development of new technological applications, will be important in order to ensure that the Information Society will be one of inclusion and participation, where disabilities are not seen as cause for exclusion or isolation. This is particularly so considering that this new Interactive Society is one in which knowledge is the determining factor, beyond mere technical capabilities. Therefore it is worth remembering that knowledge is a factor that can only be found with people, and in their willingness to make collective intelligence grow on a daily basis. Furthermore, its full potential will only be realized to the extent it is at the service of the solidarity and welfare of each community.

That welfare will rely on the development of new levels of collective intelligence, just as social cohesion and the competitiveness of the different business spheres already do. Otherwise, the Information Society will lose much of its potential. Although it is true that the growing importance of telecommunications and information technologies is helping make societies increasingly to be seen as online societies, what is really important is not so much the communication networks as the social and economic applications and the knowledge being carried over them.

The development of collective intelligence levels, which is the major asset capable of making profitable the investments in wires and programs, is not something that can be carried out from one day to the next, nor can it be achieved through material investment alone. On the contrary, it requires slower processes; ones in which the different players representing the true drivers of the growth of this new social capital which is knowledge, are actively involved. These are processes that will rely almost entirely on the ways in which individuals can learn

and teach, on how competence in problem analysis can be improved, and how expertise in finding solutions for those problems can be strengthened through more effective and efficient instruments. In other words, such processes will rely on how the users of the new networks and applications employ them to better solve old problems and, above all, on how much they are open to new opportunities and horizons as users expand their interests, engage in business or pursue institutional programs.

If any one thing can be said to characterize cyberspace, it is the connectivity that allows transmission of knowledge, enabling it to be continually processed and re-elaborated, with the help of any player with access to its technical and social networks. In this way applications are generated which, thanks to the multiplicity of channels, may be used to find new solutions to old problems, to find where new opportunities lie, and to analyse the disadvantages that come with all development.

Knowledge, connectivity and virtuality are, therefore, appropriate terms to use in summarizing this change. They are not simply catchwords used to conclude speeches for any occasion and purpose. Rather they represent a shift towards a concept of society in which knowledge is the determining factor of competitiveness; the true source of value and wealth.

It is here, in this context of increasing opportunities, in which there is a risk of dualization and exclusion, where it is necessary to affirm the need to safeguard the rights of some of those users of the Information Society who run the risk of coming up against serious barriers to accessibility and, in the last analysis, to equality, with the consequence that such a situation would imply a social mutilation of that collective intelligence driving the Knowledge Society. The collective intelligence must be built with the participation of each and every one of the members of society, and it would be absurd to disdain the valuable contribution that could be made by that 10% of the population made up by persons with a disability, or by all those others who, due to their age or any other condition, find difficulty in gaining access to the computer networks and services.

Additionally, it is clear that there is no sense proclaiming, in different political programs, a concern for achieving accessibility for all, if such mani-

festations are not translated into operative programs that promote social inclusion. If what is desired are societies dedicated to education and full employment, with a greater quality of life, mutually caring and cohesive, in which all are entitled to produce innovation and initiatives and influence the rise of new opportunities, then the issue of disabilities must be taken into account in the construction of the Information Society.

If the Information Society is to be one that fully integrates all its members and achieves social cohesion, and not a new source of exclusion and dualization for its citizens, it will be essential to harness the commitment of the public authorities, of the economic and social players, and, at last, of the whole society, in order to develop appropriate legislative measures and technical, business and social projects which allow those with disabilities to benefit from products designed for everyone, as well as from enabling technologies which empower their users, in such a way that technical advance and the new applications and services of the information and communication technologies can become a source of opportunities leading to integration, learning and employment, and not a set of new barriers that increase exclusion and discrimination.

Requirements for the development of social inclusion policies

In order to achieve an Information Society for All, it is necessary to reinforce and develop policies and initiatives that help foster learning and training of persons with disabilities, to familiarize them with the new technologies and applications of the Information Society, as well as promote measures and projects that foster access to employment and provide equal opportunity to participate in the new professional and employment horizons arising with the new social and business realities. It will also be necessary to push forward those projects, programs and initiatives in the fields of innovation and development which intensify the emphasis on design for all, that boost the generalized application of enabling technologies and those other solutions that enhance accessibility to the development of those new realities.

This will require, in the first place, that the private sector develops an awareness of the existence of the social groups comprising the disabled and the elderly, and of the market potential which these groups represent. Such an awareness must also

take into account the special features that characterize these groups, bearing in mind that they represent an economically important segment of the population, not only because disabled persons who gradually enter the labor market is a part of the labor force on the rise, but also on account of their estimated real economic capacity which, for elderly people, will stand at 25% of the monetary circulation by the year 2010. At the same time, it will be of great interest to make the business community know that the universally accepted concept of designing with everyone in mind, and the advantages that come with it, not only makes it possible to meet the demands of the groups of elderly and disabled users, but also, as experience has shown, the business products that incorporate the concept of design for all are in the end recognized by the rest of consumers as being more enjoyable and easier to use. And, finally, such products contain a higher level of quality that distinguishes them from those conceived from more limited and exclusive perspectives.

In line with the above, users should let the operators and manufacturers know what features they hope to find in products and services, as a result of their current disability, or what they would like to see developed in the future. Furthermore, in order to progress towards total accessibility, it is essential to simultaneously undertake a revision of technical standards, bearing in mind that these users, due to their limited impact on the markets, will never be able to effectively influence prevailing standards, unless they can get businesses, educational institutions, the different social agents, and leading civic entities to make a concerted effort to coordinate their different initiatives and proposals in this way.

In pursuit of that commitment and coordination is how these special users must focus the thrust of their action. Nevertheless, they must also participate on the same terms as the majority of users in awaiting the opportunities which the Learning Society opens to all. The first of these is the ability to learn in a cooperative and interactive environment, exchanging experiences and expectations, taking advantage of the interconnectivity provided by the new networks and applications, and doing all of this in such a way that the Knowledge Society becomes a goal that responds to our legitimate aspirations, and a society in solidarity with all, where the ideas and wills of people and their associations are not disdained.

To achieve this, it will be necessary to instrument programs that seek commitments on the part of public authorities, socio-economic agents, and, in the final analysis, on the part of the society as a whole, in order to develop appropriate legislative measures and technical, business and social projects that allow those with disabilities to benefit from products designed for all and the use of enabling technologies. The objective is to make technical progress and the new applications and services of the information and communications technologies act as a source of opportunities for integration, learning and employment.

This does not mean that it is not imperative that, within the diverse initiatives undertaken, it is the users themselves who must be the first to do battle in order that the needs of the disabled receive special and differentiated treatment that would help achieve the integration and equality intended. Also, to receive the support of the public authorities and civil society, so that Action Plans for Equal Access to the New Technologies and the Information Society may be sponsored, from which policies and initiatives that contribute to promoting learning and training in the new technologies and applications of the Information Society may be strengthened and developed. Additionally, to foster as many measures and projects that may be necessary to allow equal access to employment and opportunities in the new professional and job possibilities arising with the Information Society.

Obviously, in order to do this, it will be necessary to analyse the existing regulatory frameworks, in order to incorporate in them such modifications as would enable the Information Society to be open to all. At the same time, and with respect to the new rules that may be developed, it will be necessary to consider the needs and demands of the disabled so that the new standards do not have a negative impact on the opportunities for integration opened by the new technologies and their generalized applications.

Finally, it will be necessary to undertake those projects, programs and initiatives for innovation and development that are specifically designed for all, and that allow a generalized application of enabling technologies. Incentives must be created, through priority participation in the programs being promoted, by means of tenders that would invite both public- and private-sector aid, that would further the implementation of projects that would contribute to

the development of enabling technical solutions and applications that facilitate access to the development of the Information Society for All.

In order to develop these main lines of action, it will be necessary to specifically promote, in relation to updating standards:

- A review of the practices and conditions for the procurement of goods and services by the public administrations, so that they will be required, when acquiring any information technology material and applications, electronic or telecommunications equipment, and in general any sort of goods and services, to ensure that these be directly accessible or capable of being adapted through technical support existing on the market at any given time.
- The preparation, in collaboration with associations of disabled persons, of directories for the purchase of accessible working and educational material, so that such directories, as in the case of the preceding point, may serve as reference works and set the standard for good practices for the rest of the productive sectors, as well as for private-sector initiatives and not-for-profit entities.

Additionally, and in order to facilitate the development of projects focused on inclusion in the labor market and integrated learning, as well as of such other projects as would promote and emphasize the concept of design for all and the application of enabling technologies, it is necessary to:

- Prepare catalogues specifying the particular needs of each type of disability, so that such catalogues may serve as reference works for consultation over the networks and be updated as those needs evolve, depending on the prevailing technical advances.
- Promote the creation of forums for presenting initiatives and proposals that would adapt technological offerings to the demands of each type of disability. Such forums could be included within a portal of public/private-sector initiatives covering various aspects of the different types of disabilities, as well as both avenues for labor inclusion and job searches and ways to facilitate learning through virtual education systems.
- Develop action programs that, simultaneously

with those applications under preparation which facilitate the e-government, would allow it to become a reality for disabled persons, so that public-sector initiatives may again be seen as an example of good practices and social inclusion, or of what should be done so that any portal or web site may be accessible to all.

Such proposals must be accompanied by actions taken by groups of disabled persons. This means it will be necessary to encourage, guide, and channel, in an appropriate manner, the evaluation and collection of data carried out by those groups, and, with the aid of experts, compile information on the needs that should be met and the facilities that should be provided by the technologies, products and/or services deriving from, or directly related to, the telecommunications sector and the generalized application of new technologies. At the same time, it will be necessary to carry out surveys on the degree of penetration, in the different social groups, of prevailing products and innovative services, which would make possible an evaluation of the increase in the quality of life that can be associated with the use and implementation of those innovations already deployed or soon to be introduced.

In a similar manner, with regard to private-sector companies and institutions devoted to technical innovation and development, it is important that they take steps to incorporate new business criteria to be applied when evaluating, from the perspective of the Information Society for All, the business initiatives they are developing. Such criteria must take into account that, if the Information Society is to be one of social inclusion, it must pay special attention to groups in risk of exclusion, and particularly, to disabled persons, to ensure that such business projects offer new media and tools designed for, and accessible to, all citizens and users.

Furthermore, the business processes of such projects should facilitate inclusion in the labor force as well as training and professional education, according to the specific needs of each worker, without erecting barriers and limitations that might lead to social exclusion or widen the digital divide that disabled persons must overcome in order to gain access to the new employment opportunities arising through the Interactive Society.

With this new set of criteria for social integration projects, it is also important that the business ini-

tiatives should allow the possibility to specifically evaluate the potentialities of 'access for all' from the following three perspectives:

- a) The immediate users, who are disabled.
- b) Cooperative arrangements on applications in conjunction with other initiatives to promote the social integration of disabled persons.
- c) The procedures of social insertion and internal training, as well as the implementation of good practices as regards accessibility.

The above will require evaluating whether each business initiative facilitates accessibility to its applications, products and services for all users, with no discrimination or exclusion of any kind owing to a disability or, failing this, whether complementary means have been foreseen that would allow reaching the entire market. It will also require an evaluation of whether the initiative in question facilitates insertion of the disabled into the workforce, specifying how many jobs can be created in the immediate future and over the longer term, and whether any applications have been anticipated concerning work alternatives such as telecommuting, which allows the social insertion and labor participation of disabled persons. Finally, it will require an evaluation of whether, in the development of each initiative, the professional education of any of its employees, current or future, whether or not they are disabled, and whether the application of methods that facilitate learning and retraining of the disabled has been foreseen, even though this would mean distance learning and the use of special tools and equipment.

The development of such measures would lay the foundations, in a generalized way, for the development of a series of digital opportunities such as those that could be presumed to emerge from the e-Europa 2002 initiative, assuming that the guidelines formulated by the European Disability Forum (EDF) are followed. The latter corroborates what was already put forward in April 1999 in said forum's Manifesto on the Information Society and Disability, which advocated that the disabled be made active participants of the interactive society rather than mere passive subjects of tele-application and alleviatory assistance programs.

The cited manifesto dealt with different aspects including education, employment, legislation, mar-

kets, serviceability, accessibility and availability of the Information Society. Consequently, the EDF, which at the time warmly welcomed the already mentioned e-Europe initiative, recalled the need to obtain funds for the concept of design for all and to avoid the digital divide, so that no one would be left behind. Subsequently, when more details were known about the European Action Plan, it was borne in mind that the disabilities issue should be included in every program and not only in those devoted to learning and qualifications.

In this climate it is also possible to include other initiatives that are trying to lay the foundations for a reduction of the differences in the dissemination of the advantages and applications of the Interactive Society (the so-called digital divide). Thanks to such initiatives, those differences are reduced by the positive and coordinated effect of public action and private commitments. In this way, through the contribution of public funds, the participation and specific programs of companies, educational institutions and social action institutions, attempt to go beyond the adaptation of tools and procedures in order to bring digital benefits closer to the disabled. This seeks to develop enabling technologies and the

often repeated application of design for all, which grants greater serviceability and quality to products and services, permits access under conditions of equality and eliminates discriminations of a technical and operational nature.

Such conditions, if they are to be achieved, must be accompanied by the generalization of good practices that facilitates the adaptation of standards and procedures so that it will not be the legal barriers or rules existing prior to the concern for the acquisition and provision of services for accessibility, that will put an end to the efforts of designing for everyone. But above all, it will be necessary to overcome the social limitations that obstruct social integration of the disabled, and which still presume that uniformity is more highly valued than diversity.

Therefore, the current actions are being carried out within the context of a struggle against the mentioned digital divide. They are valid actions, but the efforts and initiatives should not end there, because there is much that still needs to be accomplished. On the contrary, it is important to bring public attention to new programs, some of which could reinforce actions of global scale.

2

SOCIAL INCLUSION EXPECTATIONS

Opportunities and threats

The development of the Information Society is now having, and will continue to have, an enormous impact on all areas of human life. Change is taking place not only in how working and businesses are carried out, but also in the ways people study, have access to knowledge, interact with other persons, enjoy themselves and develop their own pastimes. It would therefore be a mistake to think that in the case of persons with a disability, the Information Society would only affect them insofar as their health or mobility problems are concerned, to the neglect of all the other social aspects of their

lives.

For people with a disability, as occurs with the rest of the public in general, the development of the Information Society is not only something that affects all aspects of their lives, but which is, in addition, something that is full of possibilities and risks. The new technologies for information and communication are, undoubtedly, a formidable tool to improve social integration, and a repository for many expectations. But it can also become a new and unsurmountable barrier for many disabled persons. The Information Society is therefore a chal-

lenge that carries within it both risks and opportunities.

The development of the Information Society can be a serious threat to the equality of the rights of persons with disabilities, unless its challenges are faced in such a way that those fundamental rights are protected. Information has become a social necessity and a basic aspect of human rights, and we cannot allow any group to be excluded from it. Those who cannot have access to information (and to its generation and dissemination) under conditions of equality, run the risk of lacking more basic human rights.

Persons with a disability face a real danger of becoming excluded from these technical advances. According to the EDF in its Manifesto on the Information Society and Disability, at present, persons with disabilities have no guarantee that the Information Society will keep its promise to become a society totally accessible for everyone. If the technology does not adapt to the needs and individual capabilities, or if standards are not introduced that take into account the access needs of disabled persons and of other groups of consumers, if the major part of the information of the future is processed in such a way that some groups of users with disabilities are excluded, then the Information Society will constitute a threat for the disabled persons of Europe.

Training and employment expectations

One of the aspirations of the population segment comprising disabled persons, endorsed by the EDF in its Manifesto, is that the European Union should promote the active utilization of information technologies to facilitate inclusion in the labor market for large groups of persons with disabilities in Europe, who currently do not enjoy equal employment opportunities. Many of these people only need to adapt their work tools and environment in order to perform the same job that someone without a disability can do.

Much hope has been placed in the role technology can play as a tool to improve training levels and to promote the employment of broad groups of disabled persons who currently are not a part of the productive processes.

This is an issue of vital importance because, since employment is the primary way to achieve social

integration and to obtain the necessary remuneration for a decent life, the number of unemployed disabled persons is disproportionately high in Europe. Information technology can change this situation by providing jobs at home for persons with a disability that seriously restricts their mobility, or by accommodating conventional workplaces to make possible access to employment for new groups of possible users.

The Information Society brings with it an infinite number of opportunities that can contribute to an increase in the employment rate for disabled persons. On the one hand, because the new technological tools can simplify the way in which many traditional jobs are carried out, a disabled person would be able to do them, thereby opening up access to existing employment. On the other hand, the development of the Information Society is giving rise to new forms of economic activity, which bring new types of work. Many of these jobs can easily be carried out by a broad range of disabled persons. All this broadens the range of jobs that can be carried out by disabled persons.

The growth of employment in the services sector constitutes another great opportunity for disabled persons. Not only is the number of persons employed in the services sector increasingly larger, in detriment to industry and agriculture, but the number of persons engaged in tasks related to the production, handling, and transmission of information is increasingly greater. The growing need for greater qualification, more intellectual than physical, can offer interesting employment opportunities to persons with physical and sensorial disabilities. Currently, numerous industrial processes are guided or controlled by computers, which makes it easier for disabled persons to hold jobs in this field as well.

Of course, there also exist threats from which it is necessary to be on guard. History shows us that structural changes always imply a danger for vulnerable groups who may see how their situation worsens as a consequence of the changes taking place. Nevertheless, it is necessary to take into account that there is nothing natural or inevitable in such a situation. When problems are anticipated correctly, the dangers posed by change become challenges, and threats become opportunities.

Automation has brought about the disappearance of many tasks that required intensive use of low qualified personnel, and has increased the demand

for better prepared workers. The impact of automation on the employment situation of disabled persons depends, among other factors, on their level of qualification and on the needs associated with their disability. For disabled persons who do not have a very high level of education and specialization, technological change can have a negative impact on their work opportunities. Herein lies the importance of investing in the training of disabled persons, utilizing all means available to foster learning throughout life, and specifically, undertaking programs of 'technological literacy', to give them the possibility of acquiring the necessary computer equipment, or of gaining easier access to them (by creating, for example, telecenter networks), and of guaranteeing the existence of an appropriate telecommunications infrastructure.

Access to goods and services for public use

Disabled persons constitute a potentially very large group of consumers, since they already make up 10% of the population of the European Economic Space. It comprises a group with a high organizational level, and that, therefore, can make their preferences influence the market. Therefore, there are a great number of implicit possibilities for commercial operation of information technologies that have been developed taking into account the needs of disabled people, especially because, with increasing frequency, there will be more disabled persons who use these technologies.

Nevertheless, the lack of participation of users in the research and development of new technologies or the lack of accommodation of those technologies to the individual needs of disabled persons can exclude many potential consumers from using such technologies, unless costly adaptive measures are taken in the finished products. In addition to the loss of competitiveness that this would imply for the economic system, the most negative side is that, if the needs of the disabled are not taken into account, a large sector of European citizens will be excluded from access to information, products and services that are important in their lives and personal interests, which can only increase their social isolation and threaten their fundamental human rights.

Legislation and universal design are fundamental elements for bringing about equality of opportunities for disabled persons vis-a-vis the new tech-

nologies of the Information Society. In compliance with the non-discrimination clause included in the Treaty of Amsterdam, the European policies and the policies of the member states should be based on the principle of non-discrimination with a view to ensuring that equality exists for disabled persons. In the future regulations should impose upon the public and private institutions the obligation to render services designed for all citizens. As so that this accessible future is increasing closer, it is essential that the public administrations implement enabling regulations and encourage good practices that constitute an example and stimulus, so that citizens and market initiatives adopt and put into practice the principle of design for all as an unavoidable condition for participating in the social and economic life of society.

The regulations to be established for design for all and universal access must take into account particularly the uniqueness and situations of serious discrimination that some specific groups of disabled persons suffer, such as the deaf, the blind, the mentally handicapped, the mentally ill, etc. The decisions adopted on this issue must be the result of consultation, debate and negotiation with the representatives of disabled persons, who are in the best position to know directly what situations of discrimination still exist and the best proposals for resolving them. The design for all concept is a possibility for examining in greater depth and detail the principle of civil dialogue.

Participation in the Information Society

The current lack of user participation in the development of the Information Society in the European Union excludes the disabled from the possibility of arranging their future daily lives, and this exclusion from participation in the development of the society is antidemocratic and discriminatory. Therefore, EDF has requested that the influence of users be guaranteed in the research and development for products and technological applications, through the incorporation of persons with disabilities in the development process of new products and the adaptation of existing ones. This will have an effect on products and applications in that these will then be of higher quality and more useful. Disabled persons know better than anyone how information technologies can improve their lives. The disabled make up an important potential consumer group and, therefore, if new products are developed that provide access to this group, it will be possible to

save much of the costs incurred by making adaptations and changes, which are inevitable when the needs of all users are not taken into account from the beginning.

It is also important to recognize on the one hand, that the interests of disabled persons in the Information Society affect all aspects of their lives – from the political, social, labor, educational, and cultural perspectives, etc. – and that they are not limited to the health and social welfare spheres. On the other hand, disabled persons do not constitute a homogeneous group. Rather, they have interests as varied as individuals in the rest of the population. Disabled persons hope that political decision-makers in the European Union will have a clear idea of the possibilities and threats faced by the disabled as a result of the Information Society. In a society which is rapidly evolving, the risk that large groups of European citizens may be excluded and deprived of the right to participate in the decision-making processes, constitutes a problem for democracy that must be taken very seriously. As the only authority capable of guaranteeing equal rights for disabled persons on a European-wide scale, the European Union must recognize its responsibility to include all its citizens in the development of the Information Society.

Total participation in society, and more specifically in the Information Society, means not only having access to it, but also that it be accessible, as well as having a knowledge of its possibilities and being capable of profiting from its services and products. Therefore, the services and products should be appropriate for all those who wish to use them, because if not, many of its advantages will be lost. All of the barriers that impede total participation of disabled persons should try to be removed, including economic barriers, for which it is necessary to guarantee sufficient economic support so that information technology is available to the disabled, who otherwise would be excluded from acquiring it.

Towards the Knowledge Society and Collective Intelligence

The Information Society refers to the interrelations between persons. This fact should not be forgotten, nor that technology can never be a substitute for contact between people. The use of information technology is and will be of vital importance for disabled persons, if it is developed with a view to the creation of networks and communication, to the

exchange of experience and relevant information and to the creation of spaces where disabled persons can meet others living in similar situations.

That is why another forceful idea has come out of the Information Society. It is the Knowledge Society and it manifests itself through the community of knowledge, where participation and the summing together of capabilities and potentialities of its elements is what generates real value. From these premises we can indulge in the hope of advancing towards a much more efficient and fair society that knows how to manage and share knowledge as diverse and complex as that needed today to understand in depth the differentiating factor of social minorities, and in which, at the same time, it is possible to generate knowledge and the necessary action to respond to the new challenges.

The collective welfare will depend more on the development of collective intelligence than on the purely technological developments, because without collective intelligence the Information Society would lose much of its potentialities. And although it is true that the growing importance being achieved by telecommunications and information technologies is helping societies to be seen, more so every day, as networked societies, welfare will depend not so much on the technological quality of those networks than on the knowledge of the persons who interconnect with each other, and on the social and economic applications that are carried over them. Without that knowledge and those applications, markets would not operate on a global scale so easily as they do today, nor would it be possible to talk about virtual companies and online businesses.

The need for global responses

The European Union has shown itself to be sensitive to the specific needs of persons with disabilities and of other social groups regarding to the Information Society, as can be seen in the document, among others, entitled *Living and working in the Information Society: a priority for people*. Nevertheless it is still evident in the policy of the European Commission that there is a tendency to forget that the interests of the disabled cover all aspects of life and not only health and social issues.

It is essential that the European Union be endowed with the legal instruments that would guarantee the principles of design for all and

TECHNOLOGIES, USER PARTICIPATION AND DESIGN FOR ALL

In speaking of the future for the disabled and their inclusion in a society without barriers nor limitations it is almost unnecessary to remember that such a future is immediately associated with scientific-technical development, with technological advances and their applications, and the new perspectives in medicine. This association occurs also when thinking of two useful directions being taken by technological change and which refer to the impact on the quality of life of the disabled and of the persons around them, and on the incidence and relevance that the new tools will have on their work, social and cultural integration. Projections, on the other hand that are underpinned by what such advances can mean for the quality of life and permanence in the social, cultural and civic activities of elderly persons and of those other persons who have overcome disabilities.

The propositions presented in the well-known Americans with Disabilities Act (ADA), which in many respects sets the standard for an understanding of accessibility and for technology to be designed for ease of use and easy understanding, are being conceptually introduced in all stages of technological development and of the practical applications of technological processes. This makes it possible to improve the quality of life factors thanks to the improvement of interfaces, to the customized integration of services and to the continual improvement in control systems. Similarly, it is hoped that the mentioned advances bring greater possibilities for social, labor and cultural integration, to improve systems for freedom of movement, transport, communications and new services.

With this it is possible to see specific advances in all issues related to the new discipline often called domotics and which are contributing to improvements in the areas of maintenance, ergonomics, modularity, serviceability of devices and personalization and accommodation to all circumstances of systems and equipment. And also in those others used in education, professional training, employment and socio-environmental integration. In relation to this last-mentioned aspect, developments

relating to the improvement of adapted environments, personal mobility and lodging, as well as leisure activities and culture, stand out. Similarly, the technological advances have a growing influence on the training process both of disabled persons and professionals, which help them in their specific processes of rehabilitation and social integration.

These advances are being facilitated by the continual action of regulatory and standardisation bodies, as well as by the decision that accessibility be a generalized application standard, which has more rapid effects in the extent to which its requirements are assumed from the public administrations. But the advances in question will only continue and be disseminated insofar as the disability and the products and services oriented towards favoring and obtaining its inclusion are also the objective of innovation processes. These processes must be guided by the goal of design made for all and supported by the participation of users in its development and the achievement of serviceable results, so that the new technologies can act in the long run as decisive springboards from which to achieve new inclusions and, at the same time, open new markets.

The growing dissemination of the new technologies in daily expectations, whether of a labor, cultural or leisure-related nature, as well as the expectation of the generalization of the Information society, are giving rise to a new frontier: the one formed by the conjugation of permanent innovation with the integration in the social and productive life of every person. This is a frontier showing new businesses and opportunities deriving from the advantages inherent in design for all in applications, services and terminals. Innovation and integration, in this beginning of the new century, are going to determine the generalized dissemination of the applications and technological novelties for all as a result of their fruitful interrelationship. Or, on the contrary, that such technical advances can become a new barrier that increases social exclusion.

Consequently, users should let the operators and manufacturers know what features they need in the products and services that their disability currently requires, or what they would like to see in future developments. It is also essential to simultaneously undertake a revision of the technical standards that will allow total accessibility, in the knowledge that these users, due to their limited impact on the markets, will never be able to effectively influence prevailing standards, unless they can achieve a coordinated commitment on the part of business initiatives, educational institutions, and the different proposals from the social agents and the entities that lead the emergence of the civil society.

These special users must focus the thrust of their action in pursuit of that commitment and coordination. Nevertheless, they also participate in the same way as other users in awaiting the opportunities which the Learning Society opens to all. The primary facet of the latter is the ability to learn in a cooperative and interactive manner, exchanging experiences and expectations, and taking advantage of the interconnectivity provided by the new networks and applications. Moreover, this can be done in such a way that the Knowledge Society becomes a goal that, above all, leads to a society in solidarity with all, where the ideas and wills of each person and each association are not disdained.

One of the aspects in which the organizations of disabled persons has most insisted is on the necessary accommodation of existing legislation to the new realities and technological potentialities so that they can respond to any personal circumstance, as well as on the adoption of regulations that would foment design conceived for all, in which the final users of the advances and applications would play a principal role. This implies bringing the realm of some undetermined technological offerings closer to a world of demands and expectations, which in many instances lacks the appropriate channels and procedures that would allow it to bring their latest requirements to the designers' attention. Such distances and deficiencies are lately being surmounted due to the fact that the manufacturers, spurred by those public administrations which, in compliance with their best practice, prescribe only the purchase of equipment and services that guarantee equal access, are determining protocols that go beyond the concept of serviceability and try to specify what equal access consists of. To do this, they have no choice but to seek the help of dis-

abled persons, listen to their demands and respond to their expectations.

Those yearnings may be frustrated if such consultation is not articulated in an orderly way, abiding by rules which lead to a successful resolution. This would also imply accommodation to models for the training and participation of user organizations on quality of service issues and communication in R&D applications.

These projects were spawned with the aim of developing a conceptual framework relating to user participation in R&D, based on the idea of association under equal conditions and in real processes. It is also important to emphasize that users are not isolated individuals, but representatives of interest groups that have aided both the training of those users and their subsequent insertion in real R&D processes, as well as better exchange of good practices and the dissemination of the results, while also fostering greater understanding of information technologies and communications.

To arrive at these approaches to the issues, it was necessary to realize that user satisfaction is essential if products and services are to be successful. Likewise, users know best their own needs, and are in the best position to detect operating defects and disfunctioning devices. In this process, the role of international standards such as the UN standardization norms, or the standards developed under the Amsterdam Treaty of the EU, has been significant and are driving cooperative efforts of this kind. Also important are the advances made in rehabilitation technology, which have shown how valuable it is to receive user collaboration and suggestions.

Any project of this type must be articulated on the basis of principles that refer to: association under equal conditions; leadership by user organizations; equal remuneration of those participating; equal access; qualified personnel and appropriate planning and involvement from the beginning. In addition to this are some evaluation criteria and facilitating indicators, as well as a delimitation of those tasks open to participation which in some cases will be of an internal nature, and in other cases will be outside the project.

Although this type of pilot project is important, far more decisive, for the participation of users to be effective, is that the associations be committed

to this type of project and that they achieve the involvement of operators and manufacturers through agreements and institutional platforms capable of programming activities, training users and leading R&D initiatives; sharing costs and responsibilities. Only in this way can design conceived for all avoid becoming a mere 'flash in the pan', to take on a reality defined by specific plans, programs and actions that can be included in the public- and private-sector initiatives that are building the Interactive Era, which should not seem foreign to any personal aspiration for active participation in collective endeavours.

In short, the aim is to do the groundwork so that the new technologies may facilitate the participation of the disabled in the development of collective intelligence, under the assumption that opening up opportunities of equal access for all is a way to take advantage of what the collective intelligence have to offer, as no one is excluded from their development, as well as a way to learn to manage the evolution of personal capabilities, with what this entails for maintaining employability for all, considering that, at the pace at which personnel requirements are expanding to adapt to the changes taking place, anyone can be subjected to a functional disability and made to feel disengaged from an active life, which is to feel in the first person what it is like to be on the other side of the digital divide.

From user participation to 'design conceived for all' as the rule to follow

User participation, although decisive, would be useless if it were not for certain social convictions assumed in the markets as to its worthiness, and if it could not be implemented or channeled as part of the concept 'design for all'. This concept embraces the design, development, and marketing of products, as well as services, systems, and ordinary environments for the purpose of making them accessible and usable for the greatest possible variety of users. This goal can be accomplished in three ways:

- By designing products, services and applications so that they can be immediately used by the majority of potential users without the need of any modification;
- By designing products that may be easily adapted to fit the needs of different users (e.g. by adapting the user interface);

- By standardizing product interfaces, with a view to guaranteeing their compatibility with specialized equipment (e.g. technical aid for disabled persons).

It has been shown that, supporting the application of the 'design conceived for all' principle, and in all areas of private life and social environments - the home, education, work, leisure, transport, etc - significant progress can be made in the effort to remove the barriers that presently keep disabled people from participating fully, and under equal conditions with the other citizens in social life. In essence, this approach incorporates the criteria of accessibility applicable to the different degrees and types of capability, so that the greatest possible number of persons can use ordinary products and services without having to resort to adapters or special interfaces. It also means that ordinary products and services should use interface standards compatible with those used in the technical aids, thereby allowing disabled persons access to, and the use of, ordinary equipment.

Developed during the last part of the twentieth century, the design conceived for all concept is defined, therefore, as an approach which essentially aims to integrate the widest variety of human needs, and is therefore logically opposed to design conceived for the average user.

This approach has been developed and promoted in Europe through research and development activities in the fields of architecture and building environments (e.g. adaptable housing), in the industrial design of products of everyday use for the elderly, and more recently, in information technologies and communication for the disabled and the elderly.

The goal is to try to resolve, once and for all, the problem of 'discrimination by design'. Because for many years, society has considered it to be a matter of fate and not one of its concerns the fact that many disabled persons cannot access buildings and structures designed for daily life, nor use the means of transport available to the other citizens, nor use communications devices that the rest of the population uses, nor gain access to premises where the other citizens work, play, buy food or contract services. The traditional view did not look upon inadequate design as a violation of the principle of equality. From this point of view, it is the characteristics of the person, not the design, that

is responsible for his or her exclusion. The new approach to discrimination due to disability questions these assumptions on the basis of the principle that goods and services should adapt to the needs of the disabled, and not the other way around.

The promoters of design conceived for all have coined the slogan "The right design opens doors; the wrong design closes them". This is particularly true for the elderly, who can find themselves functionally disabled as they gradually lose their sensorial capacities and mobility. The moment when they resort to technical aids and adaptations in their homes will depend in great measure on the way in which their environments and the products they use have been designed. In those cases in which solutions have been foreseen based on the principle of design conceived for all, a certain degree of foresight makes it possible to reduce or completely do without specialized aids.

Most disabled persons can recall countless examples of discrimination caused by careless or inappropriate design. In the building environment, users of wheelchairs often find themselves excluded by environmental barriers introduced in the design stage: train platforms without elevators, entrances to banks and commercial establishments with rotating doors, sidewalk curbs without ramps, etc. These same obstacles also pose a challenge for parents who take their children for walks in baby carriages or strollers, for people with shopping carts, and for travellers with suitcases.

In the information technologies and communications environment, where it is assumed that innovation is a decisive factor, the tradition of designing for the average user, without taking into account the needs of disabled persons, has unfortunately prevailed in the ordinary products available today. Not even technologies associated with Internet are free of barriers when, in theory, they should make it possible to improve access of all citizens to information and services. Persons affected by a sensorial or mobility impairment can find themselves excluded if the Web pages and their content are inaccessible to the navigators and other interactive devices that they use.

Currently, the European Commission and different players throughout the European Union are taking into consideration the principle of design conceived for all in a series of political environ-

ments. The Commission's Communication, *Towards a barriers free Europe for people with disabilities* (2000), includes a series of proposals directed towards promoting accessibility through the adoption of integration policies in environments such as the information society, opening the domestic market in the sector of technical aid, and protection of disabled consumers. The legislation and universal design (design for all) are considered fundamental elements to bring about equality of opportunities for disabled persons. This approach has the firm backing of the European Disability Forum.

Particularly important, in connection with design for all, is the eEurope Action Plan, which presents a series of measures directed towards guaranteeing the accessibility of the knowledge society to disabled persons. Among the actions foreseen is the adoption of the guidelines of the "Internet Accessibility" initiative in all public spaces, the publication of standards for 'design conceived for all', the creation of national centers of excellence dedicated to design for all, and the development of a European 'c.v.' in design for all, especially for designers and engineers who work in the fields of information technologies and communications.

Additionally, in the framework of the Swedish presidency of the European Union, a meeting of UE experts was held in Linköping (Sweden) on the subject of accessibility, in which a broad range of players supported the strategy of the European Union on the issue of accessibility. This was a landmark event because the conclusions and recommendations of the meeting are a firm commitment in favour of the elimination of access barriers for disabled persons in Europe – wherever they may appear – and of the adoption of a pro-active approach with a view to preventing the appearance of new barriers in the future. Free circulation, access to information and full participation in the social life are reaffirmed as fundamental rights of all citizens, and as such should be promoted and protected in European policies and actions. The conclusions of the meeting included the following declaration:

"The European Social Charter recognizes and respects the right of disabled persons to benefit from measures directed towards guaranteeing their autonomy, their social and professional integration, and their participation in the life of the community. In contemporary society, access

to the products, systems and services, as well as their use, are a necessary condition for full and active participation in the life of the community. An appropriate design is an important means to fight against discrimination."

The meeting therefore recommended that it was necessary to:

- Encourage those in positions of responsibility, particularly industrial players, to ensure that their products and services respond to the needs of the broadest possible public;
- Introduce the principle of design conceived for all in study programs;
- Prepare standards and legislative measures, combined with control mechanisms and penalties for non-compliance;
- Promote research and development activities with a view to enriching knowledge in the field of design for all (e.g. in the context of the Sixth Framework Program);
- Define policies that incorporate accessibility among the conditions required in tenders for public contracts.

The Commission Communication, Towards a barrier free Europe for people with disabilities, and the conclusions of the Linköping meeting, underscore the importance of certain political instruments in order to promote 'design for all'. These are: legislation concerned with fight against discrimination; standards and public procurement policies that guarantee equal access; and a heightened sensitivity towards the interests of consumers and the social responsibility of companies.

With the inclusion of the non-discrimination clause in the Treaty of Amsterdam, the European Union took a giant step towards recognition of the discrimination that occurs against persons with disabilities as a violation of human rights which it is necessary to combat through prevention and the removal of barriers that impede these persons from having access to mobility, and to goods and services, under equal conditions with the other citizens. European policies should therefore, be based on the principle of non-discrimination with a view to making equality real for disabled persons. In the future, regulations should impose upon all public and private institutions the obligation to ren-

der services designed for all citizens.

However, despite the fact that all the member states generically recognize the rights of disabled persons, discrimination due to the lack of reasonable accommodation (or adaptation) is only mentioned in the legislations of Sweden and the United Kingdom. The concept of 'reasonable accommodation' recognizes the fact that, for some disabled persons, equality of treatment can imply a type of discrimination in itself, and that equality can only be real if mechanisms of accommodation are foreseen which allow these persons the ability to overcome the barriers, such as, by adaptations in the workplace, equipment and working methods.

Nevertheless, in the United Kingdom, the Disability Discrimination Act (1995, Part III, Access to Goods and Services), (section III [Access to goods and services]) of the 1995 law against discrimination on account of disability, prohibits any type of discrimination by suppliers of goods and services against their disabled clients, for example, when the latter are not allowed to access their services or the premises where the goods can be acquired. Companies and commercial establishments are already taking steps to introduce the necessary changes, to comply with the periods set for implementing access to services and premises (from 2004). The accessibility rules and the design for all approach play a decisive role in this respect. Since the law is applied evenly to all companies as a whole, no one sector is left at a disadvantage with respect to the rest. The legislation, therefore, establishes a "framework of equality" as regards the adoption of accessibility standards, which benefits both the companies as well as the consumers.

Outside of the EU, the United States, Canada, Australia, New Zealand and South Africa have adopted legislative provisions on the fight against discrimination in the context of their strategies aimed at improving the quality of life of disabled persons.

Today, the disabled do not enjoy equal access to goods and services in comparison with non-disabled persons, and, in the majority of the member states, they are not granted the right to demand equal treatment. The EDF tries to implement in Europe a culture of civil rights backed by the law. A basic element of this strategy is the adoption of legislative provisions which prohibit discrimination against the disabled. The EDF therefore proposes

the preparation of a directive that specifically addresses the issue of disability, that would cover access to goods and services, including access to information and new technologies, as well as to buildings, transport, etc.

Standards can play a decisive role in the general development of accessible products and environments. Clearly, it will not always be possible to design all products and services in such a way that they can be utilized by everyone. There will always be some users or consumers with serious physical, sensorial or mental disabilities who will not be able to use certain products or services. However, it is preposterous to think that consumers with special needs require specific designs for all ordinary products and services. Such an attitude would exclude them from the advantages offered by economies of scale, in terms of cost, which is actually another example of discrimination. This does not keep us from emphasizing that the experience of the U.S. shows that the application of clear and precise legislative rules, determined after consulting the manufacturers, service providers, and disabled persons, and applied after a preparatory period during which technical and legal consultation services are made available to the public, have allowed significant progress to be made in the dissemination of the concept of design conceived for all and in the removal of barriers.

On the community scale, European standards activities constitute a privileged instrument when defining and putting into practice means to remove barriers, promote accessibility and to improve the social integration of the disabled. A series of programs and activities is already under way with a view to developing a "barrier-free" design for products and environments.

The experiences registered in countries such as the United States and Australia, shows that standards which clearly prescribe the means of implementation (compulsory standards) are easier to apply, insofar as they reduce to a minimum the margin for interpretation. The debates on compulsory standards tend to focus on their adequacy (have they gone far enough to remove barriers?) and on their inflexibility (they might not cover new and better technologies).

To avoid rigidity and at the same time to ensure accessibility, in the U.S. there has been a shift towards descriptive norms, which describe the

results that should be achieved to guarantee their fulfilment. Thus, for example, it is possible to require that a certain technology be accessible and usable by disabled persons, without defining its technical specifications. This approach allows for technological evolution. Nevertheless, questions may be raised on the way to interpret the rule in certain circumstances. Another innovation introduced in the U.S. consists of a conditional standard: a company is required to comply with a standard, provided it is easy to fulfil and does not imply a disproportionate burden. This condition adds a new aspect of interpretation, decidedly problematic, insofar as compliance with the standard depends on the subjective circumstances of the company, a situation that a person with a disability has no reason to know. The clarity of the standard itself, however, leaves no doubt as to its applicability. It is up to the company to show the existence of exceptional circumstances (and probably temporary) that exempt it from respecting a standard of general application.

Finally, it should be pointed out that the public administrations should play an important role in the promotion of Design for All, in their capacity as market players that can exert pressure on the providers of employers of disabled persons and on providers of services to citizens and companies. In this way, the policies of public-sector contracting can support both the social policies, which include the promotion of accessibility, and the industrial policies of the EU, to the extent that global competitiveness can require that increasingly greater attention be paid to the standards and requirements for accessibility applicable to the public-sector contracts.

In the U.S., special attention is devoted to guaranteeing accessibility in the contracts entered into by public institutions. Section 508 of the Rehabilitation Act, as amended by the Workforce Investment Act of 1998, defines accessibility criteria for all of the electronic or computer technologies developed, maintained, acquired or used by the federal government. Since it came into effect in June 2001, this provision has made a decisive contribution to the reorientation of the U.S. information technology and communications industry (ITC) as well as of the information services providers, towards adopting the universal design concept (or Design for All).

Intended to meet the needs of disabled employees and of the public in general, the ITC standards established by the Access Board should be respected in all

cases, unless they should represent a disproportionate burden.

The importance of section 508 resides in the fact that all of the technological products of ordinary use, such as personal computers, telephones, recorders and photocopiers, acquired or used by the federal agencies, must comply with the accessibility standards for disabled persons. Since government contracts represent more than a fourth of all ITC equipment purchases in the U.S., the manufacturers of hardware, and of software programs, training programs, and countless ancillary services, are now aware that the division of the market into "ordinary" products and services, versus those "for the disabled", is unsustainable from the economic perspective. Design standards for all constitute the obligatory step that will allow the transition from insular products intended for the average user, to equipment and services accessible to all, including disabled persons. There are already a large number of companies with specialized departments in charge of developing and maintaining instruments that guarantee the accessibility of their products, systems and digital applications.

This evolution in U.S. legislation will have an unquestionable impact on all forms of service that depend on information technologies, such as, for example, the online services of the public administrations, electronic commerce, distance learning and training over the Internet, telecomputing, etc.

Although Europe lacks legislative provisions comparable to section 508 or the Americans with Disabilities Act, this should not be an obstacle for the public authorities to require that the products that they acquire be accessible. The organizations that work in the disabilities field have hastened to point out that, in their capacity as taxpayers, disabled persons are discriminated against by the public authorities that construct inaccessible public spaces (telephone booths, public buildings) or that do not provide information services that are easy to access. Respect for the standards of Design for All in the government contracts should be obligatory for all of the public authorities, at all levels. Only in this way can disabled civil servants and disabled persons in general enjoy the same rights as the other citizens.

The adaptation of current practices in government procurement to comply with the new rules or new directives requires a certain degree of sensitivity

and a good knowledge of the interest groups in order to "spread the message". Section 508 has generated an unprecedented boost for greater sensitivity about the rules on Design for All, as well as for the dissemination of information in this field and the training of employees in both the public and private sectors.

The European Commission is currently studying a review of the Directive on public-sector contracts. Particular emphasis is placed on the need to fine-tune systems for electronic contracting to make them fair, efficient and secure. The EDF believes that the accessibility and Design for All requirements should receive priority consideration in this review exercise. It is not only a question of having contracting systems accessible to disabled persons, but that they respond to the Design for All standards.

Good Practices of the public administration and accessibility of the public services

However, an awareness of the value of social inclusion cannot be embraced only from the perspective of the markets. This is because the notion that accessibility to the Information Society is a civil right to be preserved become an idea more widely accepted with ever-greater intensity. This is so even though in order to make it effective it is essential that it be obtained through legislation in force and through its application by the public administrations, civil organizations, businesses and citizens.

To achieve this, it is necessary to first analyze the nature of the problem of accessibility in the Digital Era and also what the different public administrations and governments are doing, or to what extent the initiatives should be more specific beyond the Design for All mentioned earlier. Or, how they should be materialized in policies that do not leave the possibilities for all citizens to have the means to enable them to participate without limitations or discrimination as a matter of market fortuity. And what is being configured on that interlinking of networks and services that is being woven with the wires and applications of the information and communication technologies.

The new ideas are based on experience that has shown that both Design for All and adequate legislation are necessary and essential conditions, but sufficient to preserve the rights of all. Therefore it

is necessary to have political leadership and specific provisions that convert the public administrations in the guarantors of accessibility, although to achieve it they would have to assert their purchasing power, define some conditions for relations with them, which obligate all players who wish to do business with them to adapt to the standards that facilitate the accessibility that it is wished to have implemented, and to get public opinion to realize that there are other human realities that do not have so close to hand or so accessible the Learning Society and permanent interactivity.

From such basic ideas as these it is necessary to implement guidelines and procedures so that the future may be a horizon of inclusion and public commitment that is forged first in the policies of the public administration and the commitment of citizens, ahead of commercial dealings, so that it is driven from the highest corridors of power following the example of political leadership and the dedication of every public servant in pursuit of non-discrimination in order to remove the new technological barriers that arise with innovation.

The problem of accessibility should therefore be posed from a vision that has gone beyond the stage of debating about discrimination by design,

as in the present case of many statements focused on serviceability and devices, to center the thrust of the debates on the issue of how accessibility may be made an inalienable civil right, and how this can be done through effective legislative reforms and applications. It must not be forgotten either that, in order for this to be the issue on which to center the discussion, debates and practical results, it is the interested parties themselves and their associations who must strive to make known to the public opinion and the public authorities, what the causes are and what social costs are involved as a result of the new forms of discrimination, as well as the extent of the harmful effects of depriving others of advanced services, with the opportunities they entail, for a growing number of persons who see how the successes that supposedly come with the Interactive Society are reserved for those who possess accessibility.

Therefore social habits, through which a civilized society is shaped in which people do not discriminate against one another or humiliate each other - because they have embraced certain civic values and the concept of solidarity - are not at the mercy of only the will of those who form society, but are articulated according to the legislations and policies that raise the level of nations, thus allowing them be

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POLICIES FOR INCLUSION AND THE EUROPEAN PROPOSALS

The reality of disability is diverse and different, and does not fit sweeping definitions. If one looks closely at the European reality, for example, one finds that close to 40 million European citizens are disabled. This means that approximately 10% of the population of the European Union countries has some form of disability. That is, they are blind, they do not hear, they get about in a wheelchair or their intelligence is lower than average. This circumstance means that these persons start off from at a disadvantage, some more so, in comparison with the other citizens. For the disabled, the opportunities in the fields of education, the economy, the protection of their rights, labor and

social issues, are much fewer.

To give only a few eloquent examples about the low level of social integration: persons with disability gain admittance in far fewer numbers to higher education, have intolerable quotients of inactivity, as much as double or triple that of the general population, and when they gain access to employment, they usually get jobs requiring little or average qualification, a fact that necessarily translates into low incomes. Add to this, more often than desirable, the persistence of prejudice, advance judgment, attitudes, negative, or at least unfavorable, mental habits towards the disabled, towards their possibilities and potentialities as persons and

citizens, and a bleak picture is drawn, which must be transformed if it is intended that these societies see themselves as open, modern and without barriers of any kind. And more, if it is hoped that economic competitiveness is not limited by that lack of social cohesion referred to and without which a modern society would not be possible.

This is, briefly stated, the labor situation and, *mutatis mutandi*, the social situation of persons with a disability in the majority of the countries of Europe. Of course it is worse in other regions where the economies are less developed or the societies are poorer. A reality in all its disagreeable, human, social and group dimensions, urgently awaiting a response that is equal to the problem. Really, what are the most advanced countries doing, what have they done, as an emerging center of power and decision that has drawn its pay, and will collect even more in the future, a huge importance in all the realms of our lives, to change, or at least remedy, this situation? When are the standards and recommendations of the international organizations going to start to be applied, with what that would mean as a stimulus and example for the rest of the planet?.

This could be answered by saying that very little has been done, at least up to the last few years. On the one hand because there has been a lack, at least up to now, of specific help for this social dimension, and therefore of a policy worthy of that name directed towards disabled persons. On the other hand, and here is the touchstone of the issue, because there has never existed up to now the necessary political will to build a social Europe. And also because up to a very short time ago there has not been an awareness of the costs of social exclusion, particularly as regards the disabled.

Nevertheless, the changes experienced recently in some countries indicate a posture more inclined to strengthen the social dimension and to pay special attention to disabled persons in order to bring about their full participation in community life.

So, without a very precise collective perception of the situation, the foundations of a social and employment policy are being established for disabled persons, in developed countries, which everyone, disabled or not, should encourage and help consolidate, rapidly and definitively. A policy directed towards achieving the integration of the disabled into the educational and productive sys-

tems and in any aspect of social activity. This does not mean however, that this is enough to stand up to and eliminate the multiple barriers of all kinds that keep the disabled from being able to participate in the same way as any other citizen in the multiple facets of collective life, whether they be of an educational or labor nature, or refer to the fulfillment of the most varied expectations that palpitate within each person, providing the dream of being masters of their fate and to possess the necessary conditions to be able to help improve their lives in solidarity with their fellow citizens and the rest of the inhabitants of the planet.

Such expectations and concerns regarding the building of a society for inclusion and not for exclusion are unfortunately not very old. Nor are they usual or perceived in other regions of the globe where poverty and under development keep people from living with human dignity at the dawn of the Third Millennium. Furthermore, not many legislations of the most advanced countries have given concrete form to them. Rather, they are still first signs that must be made more definite day by day, even in regions such as the European Union, which is trying to give shape to that social dimension that defines it as a modern society, in which competitiveness and social cohesion are not irreconcilable terms, nor do they mean limiting the human development of 40 million of its populace, with which that limitation would mean a collective amputation.

In order to construct those new frameworks in which economic competitiveness and social cohesion are combined, the existence of some more or less advanced and precise legislative frameworks are not enough. It is necessary also that both the main players and the rest of the social body strive hard to establish policies and practices which give support to solidarity and cohesion. And which put into practice business means and initiatives that make labor and educational insertion, or the participation in any area of civic life, whether it be in leisure activities or political or cultural actions, not be seen as something unique and extraordinary but rather as the exercise of some inalienable rights that belong to any person.

Such practices will make possible, in addition, that the competitiveness so obstinately struggled to obtain, be on a par with the longed-for social inclusion for all. Knowing that the new opportunities that the technological change entails on allowing the

development of a new economy more dislocated and networked, will not become a reality without effort or specific plans. It will be necessary to strive hard to support, through specialized policies and plans, that advance towards civic cohesion and towards the expansion of markets. And it must be done, at least until the integration reaches a normal level and not require continued and specific support.

It is in this context where, within the projections for this first decade of the millennium, one may look back on what has been accomplished in the social environments in which some markets are developing, and see the usefulness of incorporating the social economy and economic activities of certain not-for-profit entities. The development of productive activities with a social purpose, such as those developed by the ONCE (Spanish blind persons' organization) in Spain, has made it possible to develop institution-business cooperation plans that are being implemented in training for the employment and subsequent labor insertion of thousands of disabled persons.

The success of these initiatives has confirmed society's receptivity to this insertion and has shown, at the same time, that it in no way diminishes business competitiveness, rather, on the contrary, it facilitates profiting from the capabilities of all persons, adapting productive requirements to personal possibilities. This makes it possible to expect that what is today the fruit of some specific programs may tomorrow be an undisputable social habit that will be so generalized it will render unnecessary targeted policies or special plans such as those alluded to here.

European proposals

Aware of the need to develop some public-sector policies that promote a development of the fruits of technological progress, while ensuring equal access to the Information Society and a fair distribution of the potential for prosperity that this entails, the EU institutions initiated a debate on the repercussions of the Information Society and have been adopting initiatives to help this become an instrument for social integration and cohesion that would contribute to equality of opportunities and insertion for disadvantaged groups.

Taking advantage of the employment opportunities of the Information Society

The importance of the Information Society as a positive force for change has already been emphasized in the Commission's White Paper on Growth, competitiveness and employment, published in 1993. As an outcome of this White Paper and the subsequent report Europe and the global Information Society, an important series of initiatives directed towards helping shape and promote the Information Society in Europe were undertaken. These were articulated in the Commission's Action Plan for 1994, Europe on the move towards the Information Society, which presented a general view of the working program of the EC with respect to the Information Society, and particularly emphasized social issues. These topics are also underscored in the Commission's European Employment Pact.

In 1996, the Commission published the Green Paper Living and working in the Information Society: People First. The objectives of this Green Paper were to encourage a debate with the other European institutions and member states and promote a dialogue between the social intermediaries on the repercussions of the Information Society on the organization of the workplace, employment and social cohesion. After noting that the approval and general use of information and communication technologies have a great potential for creating wealth and improving the standard of living, but also raise numerous questions for European citizens, the Green Paper addresses the different challenges that must be faced in order to make the transition towards the Information Society, included among which are:

- Increasing knowledge and an awareness about the new forms of job organization.
- Modernizing institutions and the regulatory framework of professional life through a reconsideration of the social protection systems, of working hours, of health and safety and their adaptation to a different way of organizing work.
- Ensuring that the small and medium-sized companies, creators of jobs, can profit fully from the Information Society.
- Managing the process of job transformation and revising the education and training systems to solve the shortage of skilled labour and continue constant technological progress in the coming years.

- Integrating more closely the structural funds policies and the Information Society so as to encourage access to and use of information and communication technologies and to boost local participation.
- Making the Information Society become an instrument for integration that would contribute to equality of opportunities and the social inclusion of disadvantaged groups.

The opportunities and challenges posed by the Information Society for disabled persons and for other groups of citizens are very much in evidence in the Green Paper. The starting assumption was that, although information and communication technologies can improve the quality of life of the elderly and the disabled by facilitating an autonomous life for them in the community and contributing to create new possibilities for access, participation and socio-economic integration, in order to take advantage of this potential it is necessary to adapt the technology to the needs of persons. It was emphasized, in addition, that the fulfilment of the full potential of these new applications raises questions about availability, price and the accessibility of information technologies and that, consequently, in addition to fine-tuning applications easily used by these groups of citizens, it is important to guarantee that both the social policy and the framework that regulates telecommunications and the provision of universal services take fully into account the evolution of the needs of the elderly and the disabled, in order to enable them to participate fully in the Information Society and to benefit from all of its advantages. Many of these questions are treated in the first report on implementation of the universal service, published in 1998.

Reaping the fruits of the wide-ranging debate started by the Green Paper, the Commission issued, in 1997, its Communication on The social dimension and the labour market of the information society. Making people a priority – The next stages. In this Communication, the Commission made a pronouncement on the aims that should guide public-administration policies in the sphere of the Information Society, which included, among others, fomenting social inclusion and aid for persons with special needs and for those lacking opportunities to improve their social situation.

With the aim of promoting complete access and social inclusion of disabled persons in the Informa-

tion Society, the Commission made the commitment to adopt an initiative directed towards promoting greater collaboration between industries, research organizations and user representatives, especially the European Disability Forum, in order to establish technical specifications adapted to disabled persons, as well as translate the results of research and development into accessible products, and provide assistance in the area of training in order to further their utilization. The commission also took on the commitments of studying, when the universal service is reviewed, what services should be included in the definition of universal services in order to cover the needs of disabled persons and their possible evolution; of continuing to develop projects related to disabled persons in the context of the plurianual program of the information society, and of reinforcing the cooperation initiated in this field within the framework of the Transatlantic Agenda. In this regard, the EU/US Conference on Disabled Persons, Employment and New Technologies was held in Madrid in 1998. This conference examined the ways of incorporating information and communication technologies in the workplace that have had tangible effects on increasing the employment rates of disabled persons, in order to identify the factors leading to success in this regard, and their implications on the political level.

In 1998, on observing that, despite the fact that Information Society industries had become one of the most important sectors, registering the fastest growth in the economy of the EU, there were worrying indications that the potential of the Information Society was not being used to full advantage, the Commission submitted to the European Council a report on Employment opportunities in the Information Society: Exploiting the potential of the information revolution, which pointed out the need to pay urgent attention to this phenomenon. The Commission's stance was that, in markets that are global by their very nature, the European Union must advance rapidly, with determined political action, if it wishes to occupy and conserve its place at the forefront of the information age; otherwise, it would pay a very high price in terms of jobs, growth and competitiveness.

In the Communication on Strategies for the creation of employment in the Information Society (2000), the Commission proposed the lines of development of such political action, insisting on the need to improve qualifications. It is based on

the observation that the workers and jobs of the information society will be very different from those we are familiar with today. In the Information Society, there is an ever-increasing number of persons who hold professions connected to information and knowledge and use tools and services typical of the new environment, both at work and during their leisure time.

The workers of the digital era should be familiarized with the ICT, have a high level of qualification and individual autonomy and be willing to move and constantly retrain (ongoing education). At the same time, in the Information Society there exists an enormous demand, currently unmet, for specialists in these areas. Since in the digital age the sex of workers is irrelevant, and in addition, the spacial limitations, temporary or due to a possible disability are fewer, the Information Society will be a world in which everyone will have greater access to work.

The European Strategy for Employment has given priority to the adaptability of companies and workers, and urges the social intermediaries to assume leadership in this area through a process of modernizing the organization of work, training and retraining, and the introduction of new technologies. However, the evaluation of the national Action Plans indicates that there is still a long way to go for companies and workers to adapt to the challenges and opportunities of the Information Society.

In October 2001, the Council of the EU adopted the Resolution on e-inclusion – exploiting the opportunities of Information Society for social inclusion, which called for the member states to take advantage of the Information Society to help disadvantaged persons, to remove the obstacles to development of the Information Society, and to further the associative development of all interested parties, placing emphasis on the regional and local dimension.

The eEurope initiative

The willingness of Europe to lead the change towards an Information Society that would promote social inclusion and integration was made clear in the launch of the eEurope initiative on 8 December 1999, with the adoption of the Commission's Communication on eEurope – An Information Society for all. With the eEurope initiative it is intended that Europe exploit its strong points and overcome the obstacles that hinder the assimilation of digital

technologies, through the achievement of three key objectives:

- Achieve connection to the network for all citizens, homes, schools, companies and public administrations.
- Create in Europe a business culture and spirit open to the digital culture.
- Guarantee that the information society does not translate into social exclusion.

Within the framework of the eEurope initiative, and at the request of the Portuguese Ministry of Science and Technology, a public discussion group was set up to analyse and support the initiative in the area of disabled persons. In its conclusions, the group made a critical appraisal of some aspects of the initiative, pointing out that the actions planned for the section on the participation of disabled persons were too short, as opposed to the aspirations and needs of this segment of the population, and they lacked specific information on how the initiatives would be funded and carried out. It was also pointed out that there was a need for the eEurope initiative to take into account that many disabled persons are in a precarious economic situation and therefore the ability to meet the costs and receive financial support are especially important issues.

Among the recommendations that this discussion group submitted to the Commission and the council, the most noteworthy are the invitation to the European Commission and the member states to establish indicators for inclusion in the Information Society for the elderly and the disabled and to carry out a comparison study of the national practices in Europe. This comparison study should essentially encompass the aspects of where improvements are necessary and how the good practices observed elsewhere can be transferred and applied. The report specified that at least the following practices should be studied:

- How the public European television networks can serve their disabled audiences and what is required for the provision of subtitles, sign language and audio description.
- Telephone service for disabled persons.
- Accessibility to the Web sites of public service

organizations, as well as of any other project whose funds are provided by the European union or its member states.

- Legislation on the intellectual property rights in all communications media (print, television, video and multimedia) insofar as it affects the freedom to produce alternative formats to satisfy the needs of disabled persons.

Initially, eEurope defined ten fields in which an action at the European level would add value. The seventh one of these referred to the participation of disabled persons in the electronic culture. However, in the eEurope 2000 Action Plan, prepared by the Council and the European Commission for the European Council of Feira (June 2000) the basic fields were revised in the light of the conclusions of the European Council of Lisbon and of the numerous reactions received by the Commission, especially from the European Parliament and the member states, as well as those made during the extra-official ministerial conference on the Information and Knowledge Society, held in Lisbon on 10 and 11 April 2000. In view of this, the different actions have been grouped around three basic objectives:

1. A cheaper, faster and secure Internet.
 - a) Cheaper and faster Internet access.
 - b) Faster Internet for researchers and students.
 - c) Secure networks and smart cards.
2. Investment in people and skills.
 - a) European youth into the digital age.
 - b) Working in the knowledge-based economy.
 - c) Participation for all in the knowledge-based economy.
3. Stimulate the use of the Internet.
 - a) Accelerate electronic commerce.
 - b) Government online administration: electronic access to public services.
 - c) Health online
 - d) European digital content for global networks.
 - e) Intelligent transport systems.

The actions relative to the participation of disabled persons come under point c) of the second objective above. The Action Plan emphasizes that, as the possibilities for offering public services and public information increase in importance when online,

access for all citizens to the Web pages of the public administrations is as important as access to public buildings. With respect to persons who have special needs, the challenge being posed is to achieve greatest facility of access possible to the information technologies in general, as well as guarantee their compatibility with aid technologies. It is a challenge which will contribute to improving the global quality of the new technologies, which often can be easier to use for everyone if, at the start of the design process the needs of all possible consumers are taken into account.

The Action Plan establishes that eEurope should make an additional effort to address the problems of those who do not benefit fully from the Information Society for different reasons, such as on account of poverty, disability, or the lack of an awareness and training. If the goal is to achieve "an Information Society for all", formulated in the framework of eEurope, a clear political priority should be given to the adoption of measures devised to combat exclusion from information. Among such measures is the proposal that the Web pages of the public sector and their content, in the member states and European institutions, be designed so that they are accessible, in order that disabled citizens can access the information and take full advantage of the possibilities of the government online.

The Action Plan also provides for the High Level Group on Employment and the Social Dimension of the Information Society, in collaboration with the Commission to carry out an analysis of the legislation and standards related to the information society to ensure their compliance with the principles of accessibility.

Continuing this line of action, on 25 September 2001, the European Commission published its Communication on eEurope 2002: Accessibility of the public Web sites and their content, which advocates the development of an Internet accessible for all citizens. Among the conclusions of this communication, the Commission establishes that the public administrations should try at all times to improve accessibility to its Web pages and seek new forms of offering content and services, as the new technologies evolve and new versions of the guidelines appear. In addition, the Commission recommends that the organization that receive public funds from European institutions or the member states be urged to make their websites accessible, and calls

on the member states to foster compliance with these guidelines, not only in the public websites of national scope, but also in the local and regional sites.

The Commission announces that it will propose to the other European institutions the establishment of an inter-institutional group for the purpose of furthering and guaranteeing the adoption, execution and regular updating of the guidelines on accessibility to Web content in the European institutions. It will also establish a mechanism for supervision of the advances in accessibility to the Web sites and will foster adoption of a code of good practice. It also announces that in 2003, European Disabled Persons Year, a far-reaching initiative devoted to global accessibility of the public and private websites will be carried out.

As noted, one of the key objectives of the eEurope initiative is guaranteeing that the information society does not translate into social exclusion. In this regard, the Commission is fostering the eInclusion Initiative. In September 2001, the Commission made public a working document entitled Potential of the Information society for social inclusion in Europe. In it, an analysis is made of the new opportunities for inclusion deriving from the Information Society (such as the potential of the information and communication technologies for overcoming traditional barriers to mobility and for a more equitable distribution of knowledge resources; its capacity for generating new services and support networks for disadvantaged persons in a flexible and proactive way, and the new work opportunities that it offers), and the new risks of digital exclusion that it is necessary to prevent. In an economy characterized increasingly by the use of information technologies in all sectors, access to Internet and digital instruction are a necessity for maintaining employment and adaptability, and to exploit the economic and social advantages of the online content and services.

The digital risks are particularly intense for certain groups of the population, such as disabled persons, the residents of poor or degraded neighborhoods, ethnic or linguistic minorities and immigrants, refugees and political asylum seekers. Although disabled persons can find in technology a way to overcome their disadvantages, this potential may be wasted if the person is not able to afford buying the aid technologies or if accessibility to the equipment or the content is not assured. The

report states that studies in some member states emphasize the persistence of a "digital divide" that affects disabled persons, in which the use of computers, Internet penetration and the use of online services are considerably below average.

Another of the fields where advances are occurring is in e-learning. The e-learning initiative was launched by the Commission with its communications e-learning: designing tomorrow's education, published on May 24th 2000, and e-learning Action Plan: designing tomorrow's education, of March 28th 2001. The objective of this initiative is to accelerate the deployment in the European Union of a quality infrastructure at accessible prices. The initiative builds on the objectives of eEurope relative to endowing all of the schools and classrooms with access to Internet and multimedia resources (high-speed Internet); progressively connect schools to the research networks; reach a ratio of 5 to 15 students per multimedia computer; guarantee the availability of support services and educational resources over the Internet, as well as of online learning platforms directed towards professors, students and parents, and supporting the evolution of the school programs to embrace the new learning methods and use of information and communication technologies.

The eLearning initiative also provides for an intensification of the training effort at all levels, through the promotion of a digital culture for everyone, and the generalization of appropriate training for professors and teachers, that would deal not only with training in the technology, but above all, with the pedagogical use of the technology and the management of change.

The Council of the European Union, in its Resolution of July 13 2001 on e-learning, has requested the member states to exploit the potential offered by the Internet and the multimedia and virtual learning environments, in order to accelerate and improve permanent training as a fundamental educational principle, and to facilitate access to the education and training possibilities for everyone, and particularly, for those for whom such access poses social, economic, geographical, problems, or on account of disability, or for any other reason.

Towards a barrier free Europe for people with disabilities

In the year 2000, the Commission took another

step forward in its policy on disability by issuing the Communication Towards a barrier free Europe for people with disabilities, which includes a series of proposals directed towards promoting accessibility through the adoption of integrating policies in fields such as the Information Society, the opening up of the internal market in the sector of technical aids, and the protection of disabled consumers. Leg-

islation and universal design (Design for All) are considered fundamental elements to make equality of opportunities a reality for disabled persons.

This proposal has the firm backing of the European Disability Forum, which calls for, on the occasion of the 2003 European Year of Disabled Persons, the adoption of a directive to fight against discrimi-

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GOOD PRACTICES FOR SOCIAL INCLUSION AND ACCESSIBILITY OF PUBLIC SERVICES AS KEYS TO AN INFORMATION SOCIETY FOR ALL

Competitiveness and social cohesion as an opportunity for business and social inclusion

The history of the twentieth century has linked together, not without problems and dramas of all types, the development of the industrial society, the advances in business management, and an increasing awareness of the importance of social cohesion when it comes to proving the modernity of collective life. In this process, while the different disciplines were taking shape, which may be included under the heading of management, it could be shown how the Taylorist systems, which initially increased productivity, were incapable of maintaining the desired pace of growth. This led to the discovery that personal motivations and the sense of collective satisfaction are not forged only with material conditions, but with other expectations as well, although the latter were difficult to attain, they made it possible to increase efficiency when it came to creating wealth and distributing it through the development of areas of social protection and safety net structures.

At the same time, as the advances fomented by technological and management change have come one after another in rapid succession, it was apparent that greater economic productivity did not automatically lead to a better and greater distribution of the wealth and resources available. Nor is it possible, as occurred with the limitations of Taylorism, over which the industrial societies took their first steps, to continue increasing the competitiveness of the markets if there are significant disparities between them, or they are not accessible for the

large masses of potential customers, because that dualism and that lack of social cohesion act as hindrances to market expansion and vigor.

Modernization, which transcends technical progress and economic fashions, is seen today as the result of sharpening the competitiveness of institutions and corporations, and an adequate functioning of the rules of efficiency and competition between them. At the same time, it is seen as a product of the underpinning of systems that foment social cohesion and therefore accessibility to the goods and services offered in the public areas or in the markets. In a modern society, such accessibility must be possible for the majority of those who aspire to participate actively in the economic and labor spheres of life, which is, in the last analysis, what allows the advantages and opportunities of open markets to reach anyone.

Such perspectives, based on the continual advances made in improving processes and productivities, as well as in the awareness of the importance of expanding and opening the markets to the majority of consumers, have been widened by the opportunities that have become more definite in tandem with the incessant technological change, which has also brought about the globalization of the markets, until recently constrained behind the borders of each country, in addition to the possibility to gain access to them without the need for a physical presence in each of them.

Globalization, dislocalization, and new formulas for distribution and intermediation have allowed the removal of barriers, the shortening of distances and the participation and trade in those markets without the delay or pauses typical of economies far apart and isolated.

These advantages, however, have not been gained, and are not gained, evenly among all citizens, regardless of their economic capacities or their desire to become actively integrated in the economic and social life. Nor are they gained evenly among all the regions of the earth, which means that globalization is limited to certain consolidated markets in advanced societies and combine a greater availability of resources as well as a greater social awareness of the importance of uniform opportunities and the removal of barriers that limit competitive practices and collective participation in the markets.

This does not mean of course, that these advanced societies have eliminated all of the conditions that lead to exclusion, or to the torment of certain groups, or to relying on the conditions and personal capabilities of some members of those societies. This is the case of the sphere of the disabled, who, in proportion to the level of efficiency attained in their society and the markets, have claimed entitlement to their participation in that active life referred to. And they have had to do it, of course, starting from very diverse realities, because the perception of disability is not the same, for example, in sub-Saharan Africa as in the countries that make up the European Union. Nor are opportunities for accessibility conceived in the same way in some isolated communities of Latin America, as in the advanced technological markets of California or the East Coast of the United States.

The reality of disability is therefore different and disparate, and does not allow comprehensive considerations, although there is a common substrata, since disability makes a person objectively start off at a disadvantage, which in some cases is more pronounced, in comparison with the other citizens, and which gives the disabled fewer opportunities in the spheres of education, the economy, the protection of their rights, labor, and social activities. It is for this reason that specific policies and actions are needed that would put opportunities on a level playing field, fight against discrimination and establish the conditions that would make possible participation on equal terms.

Thinking of what plans will be consolidated in the century just started with this type of action, and do it from the perspective of the techno-scientific advances, is to think that the new technologies open countless opportunities for achieving cohesion and inclusion, but also a not smaller number of threats that can widen what has been called the digital divide. Heeding that risk, the more developed countries are reflecting on how to eliminate such a chasm between those who can enjoy the multidimensional side of the Interactive Society, and those who see themselves excluded from their future expectations. Therefore, public-sector and private initiatives are striving to achieve labor insertion and learning as the first essential step, to which will have to be added all those others that allow any person to enjoy new leisure activities and perspectives that are being woven on the networks and their functionalities. Otherwise, the competitiveness that could derive from these new digital schemes, would be minimized from not having reached everyone, from not having taken advantage of everything that can be expected from a society without barriers where inclusion is the norm and which needs no argument nor a defence on the basis of its economic and social profitability.

For this, it will therefore be necessary to achieve that the business community understands that non-discrimination is not synonymous with less productivity, especially in the new knowledge economies and in those where technical aid and Design for All will allow accessibility for any person, from the most varied conditions and circumstances, to some very adaptable and diversified labor commitments. In such a process, and with a view to arbitrating policies with a generalized purpose and follow-up, the public administrations are called upon to act as a pioneer reference in working for that social cohesion that is achieved through non discrimination and social inclusion. And in striving to acquire the means that will facilitate accessibility for all, and integrating into their production processes and service offerings any person who, by their own means, or with the necessary technical aid, can confront the requirements of each specific job.

Competitiveness and cohesion are, thanks to the new advances, even more compatible today than yesterday, if possible. But such compatibility is not going to depend on the technical circumstances and the processes in themselves, but rather on whether the persons, the institutions and the businesses accept that that compatibility will always be feasible

FROM PILOTE PROJECTS TO GENERAL POLICIES: PROPOSALS TO REVITALIZE THE IMPLEMENTATION OF THE INTERACTIVE SOCIETY FOR ALL

The constant references to the Information Society becoming an inexhaustible source of opportunities for social inclusion, are being translated into numerous pilot projects that attest to those possibilities. Such projects can be visualized in relation to accessibility to the education systems, or in applications of accessibility to the network, that range from tele-assistance to telecomputing, or to hospital rooms. In parallel, centers and services for the new technologies are being created, as well as technical support for access to leisure and multimedia systems and mass communication.

On the other hand, as regards rehabilitation technologies and accessibility to services whose functionality depends on the new technologies, such as the automatic teller machines and public payphones, it is not rare to receive news of initiatives to mitigate the lack of accessibility. Similarly, it is frequent to receive information that reports on advances in the systems of access to the computer or of technologies for autonomous mobility or for the control of vital environments. But both the pilot projects and these aids for rehabilitation are far from being generalized and standardized applications.

Moreover, even in initiatives such as e-Europe 2002, which in its first version was articulated around ten very generic objectives, among which the seventh expressly referred to "Accessibility for disabled persons", has had to be updated and rely on benchmarking techniques to achieve going from mere declarations of intent to concrete results. By having information on the final judgments of the member states and being able to compare them, the best practices can be identified and key aspects detected and disseminated for the implementation of new technologies and make possible the adoption of corrective measures, which in the end will foment both the development of centers of excellence and the creation of specialized community authorities.

In parallel with these initiatives, the proposals from the United States of America, launching the Opportunity and Digital Liberty Initiatives, with the aims of having the revolution of the Interactive Society

reach everyone, ensuring that the federal administration and the different states offer information and accessible technologies, developing a strategy for the development of Assistance Technology and Universal Design, and so that Web pages are accessible, among other measures. Such initiatives coincide with those of Canada and Australia, in pursuit of good practices and procurement of accessible material.

In the European Union, must be mentioned the specific actions taken in Belgium (server for gathering specific documentation), Austria (within the actions of social scope), Finland and France (R+D actions oriented towards the group of disabled persons) and also emphasize the specific plans of Denmark, Sweden, Luxembourg and the United Kingdom. Particularly in Sweden whose Action Plan for the Information Society deals with accessibility to broadband services of disabled persons.

Special mention should also be made of the Portuguese initiative oriented both towards accessibility and towards labor and social inclusion and which links directly with the new specific measures under e-Europe 2002. This initiative should be included in the position made by EDF in its Manifesto on the Information Society and Disability, which advocated for the disabled to be active leaders of the Interactive Society and not mere passive subjects of assistential teleapplications that mitigate but do not enable. Subsequently, the EDF has warmly welcomed the e-Europa initiative, but has remembered the need to rely on funds to finance Design for All and to avoid the digital divide, so that no one is left behind. Afterwards, and once more details relative to the European Action Plan were known, it was recalled that the issue of disability should be present in all the programs and not only in those dedicated to learning and qualifications. Therefore the EDF ended by proposing specific responses for each one of the different partial initiatives proposed in the e-Europa 2.

Therefore, through the contribution of public funding, the participation and specific programs of companies, educational institutions and social

action organizations, it is intended to go beyond the adaptability of tools and procedures in order to bring the digital advantages closer to the disabled. This seeks to achieve that the development of enabling technologies and the application of the often-cited Design for All, which will provide a greater functionality and quality to products and services, will allow accessibility under equal conditions and eliminate the discriminations of a technical and operational nature.

Such conditions, if they are to be achieved, must be accompanied by the generalization of good practices that would facilitate the accommodation of standards and procedures so that it is not the legal barriers or rules that prevailed before the concern for the acquisition and provision of services for accessibility that will cause the failure of the efforts towards Design for All.

Starting from these propositions, the EDF has proposed, with a view to the Stockholm summit, that the inclusion of disabled persons in the Information Society be considered imperative to guarantee equal opportunities and the full participation of the disabled in society, as well as their full access to the labor market. The access of all to the information society constitutes one of the priorities of the EDF, and should be considered as one of the pillars of a more inclusive society.

Among its Action Plans, the Commission has also made a commitment to implement the Web accessibility guidelines, developed by the WWW (W3C) within the WAI Initiative (Web Accessible Initiative). These guidelines will improve access for the disabled to the Internet services. EDF called for the governments to recognize the need for the disabled to obtain access to personal computers, public payphones, mobile telephones, etc. The networks of electronic communications should be accessible for all users, including the disabled.

In this line, mention must also be made of the work of the Italian administration, spurred by the disabled persons' associations to disseminate the standards for accessibility to the Web and also the actions carried out within the Community project INCLUDE.

Lastly, other initiatives that can contribute to the process of inclusion are:

- The references relative to disability in the New

Agenda of Social Policy.

- The Work Program of the Swedish Presidency considered the advisability of establishing the Design for All principle to ensure better accessibility to goods and services.
- The contributions of the European Parliament to the Directive on the universal service of electronic communications and the rights of users.

In this context, and in order to review the current status of these initiatives, it is advisable to outline the immediate projects of e-Europe 2002:

- 1) In theme 2, Investing in people and skills, paragraph 2C referred expressly to the participation of all in an economy based on knowledge.
- 2) The objective is to ensure the widest accessibility possible and make it compatible with development of enabling technologies and the generalization of Design for All.
- 3) To accomplish this it was proposed that:
 - a) Before the end of 2001:
 - Improve the coordination of policies in order to prevent info-exclusion.
 - The Web Accessibility Initiative (WAI) should be adopted.
 - The Design for All standards for the accessibility to products and services of the information technologies and particularly those that boost the employability and social inclusion of the disabled and
 - b) Before the end of 2002:
 - Review the most relevant legislation and standards to ensure compliance with the principles of accessibility and
 - Ensure the establishment and connection of the national centers of excellence in Design for All and define the training curriculum for specialized engineers and designers.

Specifically, for 2001 it was envisaged to determine the policies that impede info-exclusion, through benchmarking, exchange of best practices and the coordination of policies between the different

states.

Such activities will ask for the necessary definitions from ESDIS (High-level Group on Employment and Social Dimension in the Information Society), the specific reports of the member states on good practices and the coordination of objectives.

It is also hoped to approve the WAI standards, and their subsequent application, through the development of strategic plans to adopt the measures that would ensure accessibility to the public administration websites, as well as the dissemination of the good practices.

To do this it is necessary for the WAI standards to be approved by the Commission and that there be a greater European participation in the activities of the WAI initiative, as well as a generalized application of the mentioned standards.

This overview takes a general look at the considerations that indicate that the implementation of the Information Society for All will come hand in hand with a combination of good practices and diversified policies. These will combine the design for all proposals with others which allow configuring and instrumenting specific centers of excellence.

At the conclusion of very diverse sessions around the European Union, it was proposed that some key points be adopted in order to achieve the advances that would guarantee that:

- a) Design for All and universal access are not only a more ambitious and broader conceptualization of accessibility, they also create a new dimension well suited for furthering and ensuring the full participation of disabled persons in all social spheres.

This requires that the demand of Design for All not be limited only to the conditions of goods and services, but that it also apply to the manufacturing of products and the provision of services in general, whether they are offered to all citizen by way of the market, or whether they enter within the scope of action of the public authorities. While such a demand, as a premise for standardized universal access, must come guaranteed by the mechanisms legally established for the fight against the discrimination of disabled persons.

- b) On another level, the ability to live an independent life or autonomously is seen as an aspiration of the disabled person closely linked to the principle of Design for All, but on the understanding that an independent life does not mean doing everything by oneself, but to manage and decide the aid that each disabled person needs on account of this circumstance.

Therefore, to achieve success in the field of universal access, a prerequisite is to mobilize the active participation of the disability sector, which must take action and influence the public administrations and the society in a coordinated and uniform way, speaking for disabled persons with a single voice.

- c) In order to implement the foregoing, the European Union should immediately adopt those legal instruments that would guarantee the principles of Design for All and universal access and prohibit discrimination on this account.

In this regard, support for the proposal of the European Disability Forum is being received from the most diverse sources, to obtain the approval of a Transversal European Directive on Disability. The member states of the EU should be urged to implement as soon as possible, in their respective national legislations, the other European standards that already exist on this issue, and

- d) that such actions should be supported so that the movement of disabled persons' associations may continue to actively help the broadest possible repertory of personal and social situations in which disabled persons suffer discrimination on account of design (transport, education, new information and communication technologies, financial products, social security, etc.). Starting from this, it is then feasible to propose the adoption of legislative measures, to set up funded action programs, and to carry out supervision and control measures to ensure their adoption and implementation by the public administrations, economic players, operating companies, etc.

From this starting point, the proposals designed to invigorate the implementation of the Interactive Society for All must be grouped around six main themes as follows:

1. The theme of Design for All, consisting in obtaining the help, support and encouragement

of the European Union, the public administrations, the economic and social players, and civil society for the generalization of Design for All in all fields of economic and social activities.

2. Development of innovation for the inclusion of disability, so that the R&D processes incorporate projects designed to find solutions for inclusion and also for the development of enabling and assistance technologies.
3. The theme of good practices of the public administrations and the economic and business community, adopted as an unavoidable standard for the acquisition of accessible goods and services and the provision of equitable public services for all. Such practices are considered an essential tool for invigorating the markets, stimulating the implementation of Design for All and achieving generalized accessibility of goods and services.
4. In order to ensure that the above areas for action have decisive operational efficiency and effectiveness, it is equally essential to develop another area consisting of reinforcing the participation of the users as guarantors of accessibility and as promoters of mechanisms and procedures for updating the accessibility requirements.
5. This implies, in addition, the need to develop a policy of support for the organizations that represent disabled persons, so that the latter may lead the processes of digital literacy, as well as specific promotion policies, and be generators of initiatives that would underpin accessibility.
6. Lastly, it is essential that updated standards be developed that would revise those already implemented as well as lay the foundations for how the new ones are managed, so that accessibility may be the unavoidable condition in all of them, and at the same time, draw up timetables for carrying out appropriate transposals that would make the Interactive Society for All a reality by the year 2004.

Finally, and in parallel with the above, it will be necessary to:

- a) Develop specific centers of excellence, dedicated to innovation, certification of accessibility, education and social inclusion practices.

- b) Support the development, in each member state's Social Inclusion Plans, of specific plans for accessibility, with an annual report on the rate of implementation of accessibility in the different services.

- c) Foment the development, in employment plans, online education initiatives, and any application of the Interactive Society, of lines of action that would allow the disabled to participate in them, in the same proportion as the other citizens participate in any of them.

This will require, in addition, that the public-sector budgets provide for the necessary funding for social cohesion and inclusion activities and that measures are adopted for the purpose of supporting initiatives directed towards social inclusion.

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