5. The regulatory scene

5.1 Regulation at the crossroads

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The future of European regulation on Telecommunications, and more generally, on Electronic Communications, is in the balance. As this book goes to press, the European Commission is consulting on proposed revisions to the set of Directives on Electronic Communications – the so-called 'Framework Directives'. Revision of the Radio and Telecommunications Terminal Equipment Directive – the RTTE Directive – has been placed on hold while any changes to the Framework Directives are considered. At the same time, the review of Relevant Markets is proceeding and an outcome is expected early in 2007. Each of these processes offers the possibility of profound change in the regulatory approach or, in the absence of agreement on changes, an acceptance of the status quo. COST 219ter and its member bodies will be taking part in the consultation processes and submitting comments and proposals, informed by the studies and debates that have formed part of this COST Action. There is of course no certainty that the revisions that COST 219ter would like to see put in place will form part of the final decisions. There is the possibility that profound changes could radically alter the ways in which the declared objective of COST 219ter would have to be approached, in the years following the conclusion of this particular Action. This Chapter will explore some of the issues which will influence the future of regulation and it will attempt to assess the effects of the possible outcomes. Legislators will be faced with a choice of directions, each one having a different regulatory impact, so it is fair to make the comment that regulation is indeed 'at the crossroads'.

5.1.1 The shape of regulation now

The Framework Directives

Five Directives were proposed in 2000 and subsequently enacted. These were:

- *A common regulatory framework for electronic communications networks and services*
- *Universal service and users' rights relating to electronic communications networks and services (Universal Service Directive)*

- *Access to, and interconnection of, electronic communications networks and associated facilities*
- *The processing of personal data and the protection of privacy in the electronic communications sector*
- *The authorisation of electronics communications networks and services.*

These five Directives, together with the RTTE Directive of 1999, make up the current European regulatory framework for Electronic Communications. There are further Directives, such as 'TV without Frontiers', which specifically cover Broadcasting.

The 2006 Review

By 2006, the Framework Directives were due for review as part of the regular process for updating EU Directives. Review of the RTTE Directive had commenced a year earlier. There are several stages to the review and the process began with an examination of the scope of universal service. This was followed by wide consultation on the general and specific matters to be considered in the review, with the EU Member States as well as all other interested parties being invited to make submissions. In June 2006, having taken into account the views expressed in this consultation, the Commission tabled its formal proposals for the revisions to the Framework Directives.

COST 219ter has contributed to this consultation in various ways – by direct response to the invitation and by responses from its national Reference Groups – by putting views to Member State Governments to inform their own comments – and by discussion and debate in the INCOM (Inclusive Communications) Committee set up by the European Commission. In the direct response COST 219ter made the points which follow, and this submission encapsulates the policy which the members of this Action wish to promote.

COST 219ter Submission to the Preliminary Consultation Round

"Our main area of interest is the Universal Service Directive which, in addition to defining the minimum set of service provisions guaranteed through universal service, also sets out the statutory rights of users. We believe that it is necessary for these universal service obligations and users' rights to be extended fully to mobile networks, and also for enabling powers to be given to national regulators to apply similar obligations within their own territories to broadband services and to new generation networks and services. We are aware of the argument that

regulation may have a stifling effect upon innovative services, and we are also aware that the Commission has previously shown reluctance to extend universal service coverage to sectors where roll-out across the EU is incomplete. We wish to counter these lines of argument by emphasising that users' rights will be greatly devalued if they are confined to types of service delivery that are approaching obsolescence. Furthermore, patterns in new generation services will have developed very significantly by the time that the outcomes of the next review of the Framework Directives can be applied, and any undesirable features that have become entrenched will then be very difficult to correct. We are not pressing for a more intrusive regulatory regime, but instead we are asking for national regulators to be empowered to introduce regulation in new generation services, including broadband, where they consider it to be essential. We are supportive of the principle that regulation is necessary only where the market has failed to deliver, but we contend that it is inherent to this principle that regulators must be able to intervene rapidly, through subsidiarity powers if appropriate, where market failure is evident. If fast moving technologies are being brought to the market at differing rates across the EU's Member States, then observation and – where necessary – corrective intervention, must be applied nationally.

On the specific features of the Universal Service Directive, we would hope to see further clarification of the obligations in respect of calls to the 112 emergency number. The present requirement relates only to the connection of such calls and leaves open the manner in which the calls are handled, so that there is an almost complete reliance upon voice calls. In our view, this is inappropriate for modern networks and is contrary to the spirit of the Directives and their emphasis upon universality. We will argue that 112 should be accessible to all users in the telecommunication modality that they normally use – in other words, if the network offers any particular modality for public communication, 112 access should be provided in that modality. Linked to this, we want to see clarification of the definition of a Publicly Available Telephone Service, so that access to emergency numbers is seen as an obligation on all networks offering telecommunication services to the public.

The availability and affordability of accessible terminals for disabled users is a matter which continues to be a cause for concern and, in our view, this is a service provision issue which goes beyond the technical requirements of the RTTE Directive. If market forces alone, in respect of the terminals manufacturing industry, have not delivered obtainable and affordable equipment, we believe there is a case for intervention as a universal service issue, for otherwise the goal of a set of services accessible to all users cannot be achieved. While the recent revision of the Public Procurement Directive will eventually lead to an improved

perception of the accessibility features that are required, we take the view that this objective can be advanced and accelerated if national agencies can use the mechanisms of universal service funding to stimulate the market for accessible terminals. Without wishing to advance any particular service models, we note that some Member States have mechanisms in place to promote the supply of terminals that would not otherwise be available. We believe that this is a legitimate use of universal service funding resources that should be specifically encouraged in a revision of that particular Directive".

In making these comments, COST 219ter was aware that there was great reluctance within the Commission to propose extension of universal service rights and obligations across the mobile and broadband sectors throughout the EU, presumably on the grounds that the roll-out of such services was uneven and Member States would therefore raise strong objections where they considered that application of universal service principles would be premature. Similar objections would be raised in respect of New Generation Services (and networks). The proposed alternative was therefore to allow freedom to National Regulators to apply such extensions once the services in their territories had reached an appropriate degree of maturity. COST 219ter members were acutely aware that technological and commercial developments in electronic communications service delivery move at a rapid pace, with the result that new patterns of service can become established before the regulatory bodies are able to take action. The balance between encouraging novel and welcome developments, on the one hand, and maintaining the basic user safeguards, on the other, can be a delicate one. If the introduction of new types of service across the EU Member States is not uniform, and there is no reason why it should be, then it is vital that regulators at a national level should be empowered to act when they consider that the time is right.

The empowerment of National Regulators does not mean that the principles of the Single Market have to be discarded, for national differences in service delivery patterns are already recognised, particularly in the application of universal service. The Commission's Communications Committee (COCOM), which monitors the implementation of the Electronic Communications Directives, is able to foster a harmonised approach in subsidiarity issues, that is to say, those areas of regulation which are devolved to Member States because fully centralised regulation would be heavy-handed or inappropriate. Use of this mechanism, instead of waiting for a further revision of a centralised Directive, offers a vitally important method of ensuring that users' rights and safeguards are maintained in evolving services. It should also ensure that the delivery of the set of basic services, defined as universal service, is not consigned solely to traditional networks which may be facing obsolescence.

The emphasis in COST 219ter's submission - above - upon the manner of making 112 emergency calls arose because this facility was seen as an important indicator of the availability of basic services. Traditionally a feature of PSTN networks, it has become obligatory for mobile services available to the public, but only for voice calls. Some Member States have relay services which can interconnect fixed line Textphone terminals with the 112 voice call bureaux, but not by using the 112 number, and a few can handle emergency calls using Short Message Service (SMS) text from mobile handsets. In general, the facility for making emergency calls has lagged far behind the vanguard of developing services.

The Commission's Communication – June 2006

On 29th June 2006 the Commission issued a Communication (COM(2006)334 final) setting out its proposals for the revision of the Framework Directives, following the earlier consultations. A further period of public consultation on the content of that document ran until 27 October, following which the detailed revisions would be prepared for the Council of Ministers and the European Parliament.

As expected, the thrust of the Communication was towards a reduction and simplification of the legislation applying to the electronic communications sector, rather than an extension with added detail regulation for newer types of service. The Commission pointed out that the primary intention of the original legislation – to limit the market dominance of the former monopoly incumbents – had largely been achieved. Openly competitive services do not require economic regulation beyond that provided by the general competition rules, so sector-specific legislation can be dispensed with. The Communication emphasised that the purpose is to deal with markets, not technologies, in the furtherance of an open and successful internal market in the EU. As each part of the electronic communications market becomes fully competitive, the relevant regulation can be withdrawn and the National Regulators can step back.

In addition to economic regulation, the Framework provided for various consumer protection measures, with legal obligations on privacy, data protection, universal service and users' rights. So the questions inevitably would arise of whether and how these will be maintained once the regulatory system and its enforcement mechanisms had been withdrawn. Proposals on this theme were not contained in the June Communication. Instead, the Commission announced its intention to produce a Green Paper on universal service in 2007, 'to launch a wide ranging debate'. No time scale for this debate was suggested but it is likely to be lengthy. As with economic regulation, the removal of sector-specific requirements implies a

reliance upon more general horizontal legislation to ensure adequate protection but not all of this horizontal legislation actually exists. Nevertheless, it is already apparent that the growing convergence of electronic communications technologies is rendering detailed sector controls unworkable, so the principle of a more general consumer protection framework ought to be welcomed.

The topics that were covered by specific proposals were:

- *Spectrum management, to ensure most efficient use of the radio spectrum*
- *Streamlining the process of Market Reviews, to determine where competition is effective*
- *Consolidating the Internal Market, with greater consistency in national measures*
- *Strengthening Consumers' and Users' Rights*
- *Improving Security (and modernising the approach on network integrity), and*
- *Better Regulation, with the removal of outdated provisions.*

The examination of relevant markets, to show which market sectors had achieved full and open competition, is being carried out largely as a separate exercise with a shorter time-scale than for the main review. This will be an important aspect of the overall review process, for it could result in fully competitive sectors being removed from the scope of legislation. Directory and Directory Enquiry services were specifically noted as being ready for de-regulation.

There were some issues relating to accessibility for disabled users, addressed in the June proposals, instead of waiting on the outcome of the Green Paper and its ensuing debate. A point of particular interest was a proposal to adapt the regulatory framework on services to cover telecommunications terminal equipment, which is a move that COST 219 has long advocated. The Communication noted the anomaly that consumer terminal equipment used in broadcasting is covered by the framework, whereas telecommunications terminals are subject to the quite separate RTTE Directive. As a first step in removing the anomaly, it was proposed to review the definition of a Network Termination Point (NTP) in the Universal Service Directive and to relax the RTTE obligation on network operators to publish their NTP interface specifications. The effect of these changes was not clear; it seemed to be the intention to allow equipment manufacturers and network operators to collaborate on the introduction of

proprietary (ie non-harmonised) innovative services. Whether such a move would benefit users with a disability has yet to be proved, since one of the problems arising from the terminals/networks division has been a diversity of equipment protocols leading to incompatibility between terminals on the same network.

A further proposal was to amend the Universal Service Directive so that separate obligations are applied to providers of access infrastructure and to providers of services. This was said to be to facilitate a future review of these obligations and it would require updating the definition of a Publicly Available Telephone Service (PATS), which is another issue that COST 219 has advocated.

Directory and Directory Enquiry services are proposed for removal from regulation under the framework, on the grounds that these are fully and openly competitive and therefore sector regulation is redundant. It would not then be possible to use the framework powers to ensure that such services are accessible to people with a disability, although in Member States that have horizontal legislation on avoidance of discrimination in place (such as the Disability Discrimination Act in the UK) this obligation could be maintained. This may be seen as an example of how other, horizontal, legislation is necessary if problems with the withdrawal of sector-specific legislation are to be avoided.

A further proposal was to amend Article 7 (on Special Measures for disabled users) so as to strengthen the right of disabled users to access the emergency services by means of the 112 number. The Communication noted, appropriately, that the nature and extent of the requirement (for access via 112) needed to be clarified, but simply underlining an existing obligation may not address the issue. Another proposal in the Communication was that there should be a procedure whereby Member States could be encouraged to agree common requirements related to networks or services, and current work in COCOM on the interface between network operators and public safety answering bureaux was cited as an example. It would seem highly desirable to extend this area of negotiated common requirements to cover the ways (eg text, fax, SMS, multi-mode, as well as voice) in which emergency calls are transmitted across the networks, transferred to the public services, and answered.

There was a further proposal to create a mechanism to enhance eAccessibility. It envisaged the creation of a group consisting of Member States, industry associations and disability organisations. This group could be tasked with identifying appropriate action to address eAccessibility problems, but it was not clear what the outputs of the group might be, given that it would have to work alongside established legal and consultative structures.

Next Steps in the Review

By the end of 2006, a further round of open consultation (this time on the Commission's July 2006 proposals for revisions of the Framework Directives) will be complete. The Commission will then proceed with a formal paper to Member States, setting out the drafts of the revised Directives. The official negotiating stage will then commence. This stage could take up to 18 months, depending upon the degree of agreement among the 25 Member States. Although the Commission will have been aware of the views of these 25 nations, as a result of the earlier consultation stages, it is probable that there will be several points of contention that have to be reconciled in the course of the negotiations. The views from industry and from consumer groups will have been made known during the consultations and these are likely to diverge sharply on the general issue of more, or less, regulation as well as on specific details. Member State Governments will also have listened to these views and they will have been influenced to varying extents by them. However, it is in the nature of negotiations that some points will be conceded in order to gain acceptance of others of greater importance, so each Member State will have prioritized its objectives according to this principle. Such negotiations between 25 nations are inevitably lengthy, but eventually an 'official position' will be reached.

The official position will then be considered by the European Parliament. It is very probable that the industry associations and consumer groups will seek to lobby Parliament, in an attempt to restore clauses that they had originally pressed for but had lost in the negotiating process (or to delete others that they objected to). MEP's will have their own views, which may be coloured by representations from their constituents. As a result, Parliament may amend the official position document and the Council of Ministers (the senior representatives of the Member States) will have to decide whether to accept the amendments. Further exchanges between the Council and Parliament may take place and, in the absence of agreement, 'conciliation procedures' may be commenced. At the end of this stage, there will either be agreement upon a compromise or the entire Directive will fall. As there are five Directives here, all interlinked, a very complicated situation could arise. Also, at some stage in this process, the review and possible revision of the RTTE Directive has to be recommenced.

When there is agreement following these procedures, the Directives are enacted and there will be a time set for implementation by the Member States. This may be between one and three years, depending upon the complexity of the obligations. There may also be a transition period, if time is needed to set up new regulatory arrangements or if industry is obliged to introduce new processes or procedures.

Time Scales

It is unlikely that any revisions to the Electronic Communications Directives will produce practical results before 2011 at the earliest. If revised Directives are enacted by the end of 2008, and there is an implementation period of two years, the Member States should have their amended national legislation in place at the start of 2011. Previous experience suggests that not all the EU Members will meet the target. Time is then needed for the new national legislation to take effect, making it quite probable that the effects of the revisions now under discussion will not be observed before 2012 or 2013. If implementation of the revisions hinges upon the availability of a new batch of technical standards, the time scale could be even longer. Given the fast-moving pace of electronic communications technology, it is evident that effective regulation cannot be introduced by means of Directives alone.

The legislation contained in EU Directives has to be future-proofed, as far as that is possible, setting out fundamental requirements and leaving the detail to be elaborated by other means. Those other means will chiefly be European harmonized standards, but although it is quicker and easier to up-date standards than it is to revise Directives, the consultation and comment steps involved still make the preparation of formal standards a lengthy process. In some instances, there is scope for use of Codes of Practice as an alternative to formal standards, and if these are drawn up by National Regulators working in partnership with industry and consumers they can be available in a relatively short space of time.

It is the view of COST 219ter that the regulatory system must be able to move quickly enough to deal with problem issues as new technology is introduced, and therefore any new or revised Directives need to provide enabling powers to facilitate this – without compromising the basic barrier-free trading principles of the Single Market within the European Union. If regulation of 'state of the art' service delivery can be initiated at national levels, in those Member States where problems have arisen, and harmonized informally through COCOM, this objective could be achieved.

The RTTE Directive

Although the review of the RTTE Directive commenced before that of the Framework Directives, it has been put on hold until the future direction of telecommunications legislation has become clearer. It is not yet clear whether that clarification will emerge from the 2006 Review process. One possible outcome is that there will be very little change; some minor adjustments might be incorporated while leaving a more dramatic recasting of the legislation to a

subsequent review. If that is the result, then a similar approach could be adopted for the RTTE Directive.

Two significant areas of revision were proposed in the early stages of the RTTE review, and they were mutually exclusive. This explains the need for a 'steer' based upon the future direction of the Framework, before reaching a conclusion in the case of RTTE.

The RTTE Directive of 1999 was itself a deregulatory Directive. It removed the pre-market approval regimes for most terminal types, keeping a formal approval system only for the more critical uses of the radio spectrum. Fixed line terminals were effectively treated as ordinary consumer equipment, subject to general provisions on consumer safety and avoidance of electrical interference. Without pre-market approval, the enforcement of requirements for this category of equipment was necessarily left to the usual consumer protection authorities, typically Trading Standards bodies. One proposal put forward in the review was to take this process to its logical conclusion, by dropping fixed line terminals from the Directive altogether and leaving the more general Directives to apply – these being the Low Voltage Directive on electrical and mechanical safety, and the Electromagnetic Compatibility (EMC) Directive on electro-magnetic interference. It was argued that this would make no difference in practice, as it would simply be a recognition of the current reality. Another proposal ran counter to this in that it proposed more specific use of Article 3.3(f) of the 1999 Directive; this article empowered the Commission to make regulations concerning the accessibility of terminal equipment for people with disabilities. Although this was a potentially important power, its application had been actively debated from the time that the Directive was under negotiation, that is prior to 1999, and no practical means of drafting and enforcing such regulation had been discovered. So the future shape of the RTTE Directive was going to be determined by the answer to the fundamental question – more regulation or less? That same question would be posed in respect of the Framework Directives, so it was logical to wait on the answer reached there before completing the RTTE review.

Review of Relevant Markets

A further issue linked to the Review process, but following different rules, is the consideration of 'relevant markets'. The Framework Directives are all Single Market Directives, aimed at promoting barrier-free trade within the EU. If barrier-free trade already existed, there would be no need of such Directives. Equally, if a state of barrier-free trade were to be brought about, the Directives (for that sector) would become superfluous. This highlights an aspect of the Framework Directives which

is largely invisible to the consumer but is vitally important to the industry. Barriers to trade can take various forms; the most obvious being that of national tariff barriers, which have long since been dismantled within the EU. Second to that is the imposition of technical barriers in the form of national requirements for product safety, compatibility or quality; the Single Market Directives aim to harmonise such requirements so that goods may be moved across national frontiers without hindrance.

A further type of barrier arises from the presence of operators with Significant Market Power (SMP) in a particular territory. This has been a very significant form of barrier in the telecommunications markets, because the former monopoly suppliers – the national telephone utilities – owned the fixed line infrastructure and could control access to it by competitors. These competitors could replicate the trunk line infrastructure by leasing lines, obtaining wayleaves or using radio and satellite links, but they could not economically duplicate the local loop that provides the final connection to a subscriber's premises. Unbundling the local loop was therefore a major objective in the first round of telecommunications liberalisation and, being a complex issue to unravel, it is still to be completed. While this is perhaps the most significant example, there are other instances where a particular operator can dominate a market sector by being able to control access to critical facilities.

A crucial part of the package of Framework Directives has therefore been to identify and then to limit the exercise of SMP by dominant operators. It can be claimed that this is the most important role of the National Regulators in the telecommunications sector. Without the special features of the traditional fixed line market, any abuses of a dominant market position could be dealt with by means of the general EU legislation on competition and the avoidance of anti-competitive practices. Arguably, there is no particular need of harmonised legislation covering technical standards for telecommunications; market forces will ensure compatibility, as it is not in the interest of any operator to have a network which cannot terminate calls originating from others. There is a recognised need for spectrum management harmonisation in the radio arena, but there is an effective mechanism for this which pre-dates the Electronic Communications Directives. A reasonable conclusion would therefore be that it is the proper aim of the telecommunications regulators to work themselves out of a job, in as much as eliminating the dominance of organisations with SMP would then render the sector-specific legislation redundant.

National Regulators are charged with the task of examining all the 'relevant markets' and reporting on those where market dominance continues to cause a

distortion. Some 15 market sectors have been defined and are being examined. Only in a very few cases is there evidence of full and free competition actually operating, but some parts of the mobile market seem to be close to this point. If operators can justifiably claim that their market is fully competitive, they can ask to be exempted from the obligations of the Framework Directives, and removed from the scrutiny of the National Regulators. The outcome of the review of Relevant Markets will be decided by the Commission early in 2007. If a sector is so exempted, the user safeguards afforded by the Framework Directives could cease to apply. However, it does appear that exemption from a Single Market Directive would also remove the prohibition on the introduction of non-harmonised national legislation. Decisions on this aspect of the review could therefore be of great significance, both for suppliers and consumers.

Issues for the future

'More regulation or less?' That question is clearly going to be a key issue in the future of all the EU Single Market Directives. The original purpose of the Single Market had been to establish a trading bloc in Europe with a strong and barrier-free domestic market, in order to avoid political and economic dependence upon the North Americas or the Pacific Rim. Much has changed since the 1957 Treaty of Rome, and the growing pressure now is to harmonise trading practices between the three great economic Groups and, at the same time, to limit their dominance over smaller and poorer trading nations. The horizon is now recognised as global, and not simply European. The influence of the World Trade Organisation in promoting fair trade is increasingly observed.

It could be that the pattern of World trade will evolve much as the European Single Market evolved, over a period of 50 years, with the elimination of tariff barriers, the harmonisation of technical barriers, and concerted action to reduce the power of dominant market traders. There are agreements on tariffs and trade which aim to promote a free-trading environment in which market distortions such as internal subsidy and 'dumping'of production surpluses are curtailed. Even the large trading blocs are concerned about the power of global corporations and their ability to dictate market conditions, so there is a readiness to curb the activities of multi-national operators where they are seen to be anti-competitive. In the field of formal standards, there has for some years been a policy of moving towards acceptance of international standards, rather than territorial standards, because this is the logical way to promote trade in a global market-place. All of these measures are brought about by negotiated agreements and Treaties, and the process may be slow and difficult, but the effort being applied to it indicates the political importance attached to such moves by the World's nations.

Applying these principles of global trade to areas such as agriculture may require long and difficult negotiation, but the electronic communications market is already intrinsically global. Because it is a relatively new market, the entrenched protectionist positions found in some of the more traditional sectors have not developed and, because it is based upon a fast-moving set of technologies, it is unlikely that they will. There is little point in seeking to protect a market state that will be quickly rendered obsolescent by technological progress. Therefore, it is probable that the effects of globalization will be felt in electronic communications legislation long before they are seen elsewhere. The key question is 'How soon?'

Globalization is tantamount to having less regulation applied to the market-place, if only because of the impossibility of defining detailed trading rules in all market sectors and acceptable to all the trading nations. Broad cross-sector principles apply, in relation to fair competition and the prohibition of restrictive trading practices. This approach is at odds with the view expressed by many consumers, to the effect that more market-place regulation is necessary in order to protect the most vulnerable consumers from exploitation or from neglect of their interests. Disabled and elderly consumers are particularly vulnerable, especially if they have little economic power, because suppliers fighting for the large emerging markets have little enthusiasm or incentive for considering their needs. If the legislative direction should happen to be that of less regulation, then the question of how to protect the interests of those who are disenfranchised in a free market becomes all-important.

If market legislation should shift towards broad principles of market-place conduct, rather than more detailed sector-specific rules, a probable answer would be to introduce equivalent broad principles for protection of consumer interests. Horizontal measures for protection of citizens' rights, including such issues as disability discrimination, would be needed to off-set the dilution of legislation that is currently contained in specific market sector rules. This need not be a cause for alarm. Most market sectors are not covered by specific legislation at present, so there is reliance upon more general obligations. It would simply reflect the situation that arose a decade ago, when telecommunications liberalisation in the EU outlawed many of the older national approval rules, some of which were becoming obsolete because of technological advances. It created an opportunity to re-frame the obligations in a broader and more far-reaching manner, with emphasis upon principles rather than ephemeral detail. Less regulation is not necessarily to the detriment of vulnerable users, provided that careful attention is given to other means of safe-guarding their interests.

The Crossroads

At some stage, European legislators will be faced with three main options; to try to hold the present direction with only minor adjustments, to move firmly towards a global position with some loss of European autonomy, or to enhance the protection afforded to Europe's traders and consumers by means of additional sector-specific legislation. Whether that stage has been reached in the present review round of the EU Directives remains to be seen. What is of vital importance is the need to foresee the impact of these options, and to be able to define an adequate set of measures that will ensure that vulnerable users are not overlooked. COST 219ter members welcome the policies of ensuring that Europe's Information Society is inclusive and accessible to all. They strongly support these policies while recognising that there may be many routes to their achievement.

Which Road to Take

Although it is not be possible at present to predict the direction in which regulation of Electronic Communications will develop after the 2006 Review, COST 219ter members are fully agreed that there are some essentials that must be observed if the disadvantages faced by people with a disability are to be diminished. First and foremost, it must be recognised that the commercial forces that drive a free market do not automatically deliver offerings that are appropriate to the needs of those consumers who are outside the mainstream. Various means of protecting their interests are therefore needed and there can be no single approach. For people with a disability, many methods have been tried with differing degrees of success and it is not even obvious that a common approach throughout the EU would be attractive. The key to acceptance lies in part in national cultures and traditions, making this a subsidiarity issue for the EU's Member States, but the EU's declared policy of non-discrimination is clear and some overall legislative statement is a fundamental requirement. The following section describes the approaches taken in some non-EU Countries.

Within the EU, the picture is coloured by the history of telecommunications provision. In an era of public service provision, telecommunications was a natural extension of Posts and Telegraphs and became the responsibility of the same bodies, the PTTs. Even broadcasting, if not part of the PTT function, was managed by similar public service bodies. So the availability of specific facilities for disabled users was ensured as a matter of course within this public service ethos, often matched by complementary services from other public sector organisations. For example, central or local Government bodies might undertake the supply of

terminal equipment for people who could not otherwise obtain, or afford, it. With this background, as liberalisation of electronic communications was promoted, it was a simple matter to write into the legislation a continuation of these safeguards for vulnerable users, generally in the guise of 'Universal Service'.

For as long as sector legislation continues to apply in this field, it ought to be possible to preserve the universal service concept. The Commission's decision to review universal service outside the 2006 Review framework is perhaps a pointer towards a time when the Single Market no longer requires specific legislation for this sector and so alternative user safeguards have to be found. It may not be effective to retain the sector-specific safeguards as a piece of 'stand alone' regulation after that time, for the surveillance and enforcement functions would have been dispersed. The experience of trying to apply regulation to non-radio terminal equipment – following the de-regulation of that area under the RTTE Directive – is a clear indicator of that. COST 219ter members believe that regulation will always be an essential lever for maintaining and improving the accessibility of services and equipment for people with a disability. What form that regulation needs to take in order to be effective surely will depend upon circumstances.

Regulation in other Countries

In Australia the Disability Discrimination Act (DDA) 1992, the Telecommunications Act 1997 and the Telecommunications (Consumer Protection and Service Standards) Act 1999 are the primary legislative drivers for improving accessibility in telecommunications. The DDA was used to establish that a user with a disability was discriminated against when his telecommunications service provider failed to supply him with a rented terminal suited to his needs. This finding led to the expansion of the disability equipment program by the universal service provider.

The principles of universal service were taken up in the Telecommunications Act, with obligations on the designated providers that are somewhat similar to those found in the EU. However, it is important to note that the definition of the Standard Telephone Service in the Telecommunications (Consumer Protection and Service Standards) Act 1999 is a carriage service for the purpose of voice telephony (or its equivalent, for example, if the person has a hearing impairment) and that it meets the any to any connectivity test. This in effect means that the Standard Telephone Service is technology-neutral. However, the definition of STS is currently under review in terms of its applicability to the various types of VoIP. This has important implications with regard to mobile telephony and the provision of IP-based telephony and other next generation network services. The definition of the

universal service obligation in the Act is the obligation "to ensure that standard telephone services are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business".

There have been amendments to a range of clauses in the Telecommunications Act reflecting the increasingly liberalized aspects of telecommunications in Australia. An example is that previously carrier licences for all operators included a condition that an industry development plan must be provided, and one aspect of this plan was the notification of the carrier's activities in research and development including those of benefit to people with disabilities. This requirement is no longer there. There is extremely limited research in Australia on IT and telecommunications solutions for people with disabilities. On the other hand, consumer representation is accepted as important and the Act provides for Government funding for this purpose. There are also legislative requirements on the government regulator and the universal service provider to have formal consumer consultative processes in place.

In the USA, there are three legislative drivers: the Americans with Disabilities Act, Section 255 of the Telecommunications Act and Section 508 of the Rehabilitation Act. The ADA enshrines the rights of people with a disability to make use of facilities and services that are available to the general public. It does not include a demand that manufacturers must make products that are accessible – it is the access to the goods, rather than the goods themselves, that must not exclude anyone on grounds of disability. In contrast, Section 255 of the Telecommunications Act does require the manufacturers of telecommunications equipment to make products that are accessible wherever that is readily achievable. Section 508 of the Rehabilitation Act goes further by stipulating that the Federal Government and its agencies should give preference in their purchasing of ICT equipment to models which are accessible, unless it would present an undue burden to do so. For the purposes of Section 508, the task of defining accessibility is undertaken by an Access Board. This Board drafts the relevant standards for use by the General Services Administration – the procurement Authority for Federal Agencies. The Administration purchases commercial 'off-the-shelf' products, rather than special designs for Government contracts, and the Access Board updates its standards to keep abreast of best business practice in accessible ICT equipment. In this way the Administration can encourage the commercial market in ICT to keep up with the leaders in providing accessibility features, using the possibility of gaining Government contracts as a lever. The Access Board has established an Advisory Committee comprising members from government, industry and consumer bodies to review the Section 508 Guidelines in relation to updating them and considering accessibility

guidelines developed by international standards bodies such as ISO and ITU-T. This review is expected to be completed in late 2007 and may result in a broader set of accessibility guidelines taking into account new technologies.

In Japan, the situation is that there is a public procurement system – mainly applicable to websites – which takes into account the accessibility requirements.

Two laws, the Basic Law on the Formation of an Advanced Information and Telecommunications Network Society enacted in 2000 and the Persons with Disabilities Fundamental Law amended in 2004 explicitly mention about the necessity of accessibility in governmental websites. Under the two basic laws, the government developed Basic Plans and annual implementation plans in which target dates are determined. One example is that e-Government system which is under-development will increase information provisioning in accessible format in the fiscal 2006. The Persons with Disabilities Fundamental Law also requests local governments to develop local basic plans. Many local basic plans express their schedule to develop accessible websites.

Parallel to the enactment of these laws, Japan Industrial Standard on Web Content Accessibility (JIS X8341-3 Guidelines for older persons and persons with disabilities - Information and communications equipment, software and services - - Part 3: Web content) was developed and published in 2004. Central and local governments refer to the above-mentioned JIS in developing accessible websites. The JIS has sold more than 4 000 copies, which is said to be remarkable. Website development of these central and local governments is usually contracted to system integrators. In order to get contracts, system integrators develop and publish free of charge web accessibility checking tools. Also system integrators develop helper tools installed in governmental websites such as voice synthesizer tool which "reads" website. System integrators are now eager to sell Content Management System to central and local governments.

The number of accessible governmental websites is increasing. But problems remain. One problem is the usability. Government websites use a lot of jargons only understandable by government officials. One example is that a "motor bike" is a "light weight vehicle" in the governmental websites. The other problem is that websites are designed based on the structure of the office; therefore, people who do not know the structure find difficulty in obtaining information. The general usability must continue to be improved after the accessibility for people with a disability is achieved.

The movement above has triggered accessible website development in the private sector. Examples are websites provided by newspaper publishers.

One interesting point is that the laws do not impose punishment. Every movement is done voluntarily. The "greying" of Japanese society is considered to have triggered the movements. According to the 2005 edition of the White Paper on the Aged Society, Japanese people aged 65 years or older accounted for about 20% of the national population and this figure is expected to top 26% (approximately 33 million people) by 2015. This big population encourages profit-making corporations to address the needs of older persons including the accessibility needs. There is no doubt that central and local governments also need to consider accessibility.

This very brief summary of national legislation points to the difficulties of making regulatory demands upon manufacturers of electronic communications equipment, so as to influence the accessibility of terminal equipment. The problems are fewer with services, because avoidance of discrimination in service delivery can be demanded. The Americans with Disabilities Act in the USA stops short of a requirement that goods should be accessible. It is 'access to goods', meaning the ability to use the services of shops and other suppliers selling goods, that must be available to people with disabilities. (The Disability Discrimination Act in the United Kingdom adopts the same principle, but if the goods are supplied as part of a service – for example a rented television set or an introductory service pack for a mobile phone – then the non-discrimination obligations extend to the goods, with the onus being on the service provider rather than the manufacturer). The Australian Disability Discrimination Act has been interpreted by the Human Rights and Equal Opportunity Commission to mean that carriage service providers, if they provide equipment as part of a bundled service such as mobile phone handsets, they are obliged to provide equipment which enables equivalent access to people with disabilities, on the same terms and conditions (including price) as standard customer equipment. Under section13 of the Telecommunications (Consumer Protection and Service Standards) Act, it allows for regulations to be made prescribing customer equipment for compliance with the Disability Discrimination Act. Regulations have been made to ensure access to a Standard Telephone Service with the regulations including a range of features which are provided by the USO provider. Such features include voice amplification, a hands-free telephone, visual alert, a handset with one-touch dial memory a lightweight handset and built-in hearing aid coupler.

Although it is not possible in a free market to tell manufacturers what they should make, it is possible to impose general requirements – such as those for product safety – on the items which they do decide to make. If formal Standards that defined a broad consensus on the concept of accessibility existed, in the manner of product safety standards, then the situation might be different. Section 255 of the US Telecommunications Act imposes accessibility requirements, although there

might be debate as to what precisely these should be, but the EU has deliberately dismantled the regulatory environment which is needed to make such rules enforceable. Similarly, the government preference exercised in ICT equipment purchasing could be subject to challenge if applied in an EU Member State, because of the rules on fairness and transparency, unless the accessibility requirements were set out in a formal standard accepted throughout the Community. These issues will be considered in the next section.

5.1.2 The role of standards in promoting accessibility

In the European Union, the concept of using formal Standards in support of legislation has been developed to a very high degree. This has come about largely because of the complexities of the laws establishing the Single Market, where detailed harmonization is effectively impossible if all of the material has to be set out in the legislative documents. In order to overcome this problem the 'New Approach' was conceived, and in the New Approach formal Standards have a very specific role.

Standards and the 'New Approach' Directives

In the 'New Approach', market sector Directives aim to set out the legal obligations in as broad and technologically neutral a manner as possible. Removal of non-tariff barriers to trade, which was the primary objective of the Single Market, requires the alignment – or harmonization – of technical requirements for goods and services. These requirements have typically been imposed by Member States for the reasons of safety, compatibility and quality of products placed on the market within their territories. For products which are potentially dangerous, such as electrical apparatus, pressure vessels or medical devices, these technical requirements may be very specific and detailed. If these specific details were all to be set out in Directives, the negotiation of new Directives would be excessively difficult – even when the EU had far fewer than 25 Member States – and revisions would be necessary at frequent intervals as new risks were exposed or new technologies were introduced. The 'New Approach' was devised to overcome this difficulty by setting out legal requirements in the broadest of terms, and then relying upon published Standards to provide the detail.

There is a particular aspect of the use of Standards in the New Approach that is crucial when considering their role in promoting accessibility. With very few exceptions, the use of standards is voluntary and the linking of a particular Standard to a Directive does not give it any legal force.

Formal European Standards from the Standards bodies CEN, CENELEC and ETSI, form the basis of most of the standards called up in legislation in the EU. Compliance with a relevant standard is then 'deemed to satisfy' the associated legal requirements set out in a Directive. Therefore, suppliers will usually adopt the route of standards compliance as a straightforward and valuable means of demonstrating that their products or services meet those requirements and are fit for purpose. It is inherent in the nature of standards that compliance can be checked by different organisations, in different places at different times, and the result should be the same in each test. A compliance assessment carried out in one competent Test House will therefore have validity throughout the European Union. This makes the use of formal standards very convenient for assessing compliance with the technical requirements of a Directive, but it is not the only way of doing so. The supplier usually has the option of demonstrating, from first principles, that the Directive's requirements have been met, as an alternative to using a published standard. The results may not be so readily accepted by the regulatory bodies as would a conformity claim based upon the use of standards, but the route allows for the acceptance of an innovatory offering that is not catered for in currently existing standards.

This leads to a double problem when considering the possibility of mandatory accessibility requirements in the EU. Firstly, it becomes necessary to define in broad terms just what is meant by 'accessibility' as an essential requirement (in, for example, an EU Directive), so that even without a published standard a supplier can demonstrate that a legal requirement has been complied with. Secondly, there is the difficulty that suitable accessibility standards are not yet readily available except for physical access situations (such as wheelchair entry). Much work is being done in various bodies, ETSI Human Factors Group, ITU-T (SG 26/16) and ISO (TC 159 - Ergonomics) being just a few examples, that may eventually lead to formal European standards suitable for complementing legislation, but there is a long way to go. This double problem is linked to the very great diversity of function and need that is fundamental to the areas of sensory and cognitive disability. If the legislators cannot define 'accessibility' sufficiently to meet the purposes of Directives, it is expecting a very great deal of the standards writing bodies to remedy the deficiency. In pushing for accessibility requirements to be addressed in equipment and services, it must be accepted that these bodies are being asked to undertake a major task in setting out practical and achievable requirements. CEN/CENELEC Guide 6, which is closely based upon the equivalent ISO/IEC document, provides an invaluable starting point for standards writers but this is at the beginning of the extended standards writing process. Furthermore, the task will call for the closest co-operation, not only between different standards sectors such

as disability categorization and the technical considerations, but also with user representatives. A much closer involvement of organisations representing people with a disability is now recognised as vital. Although the Commission is issuing mandates for the production of relevant standards, it is already clear that this is a non-trivial problem.

What is Accessibility?

A considerable debate has opened up on the meaning of the term 'accessibility'. It is not easy to define as it has acquired a range of meanings in common usage with particular interpretations in specific contexts. However, effective and widespread use of formal standards requires that a common meaning must be adopted. Use of the term 'accessible' is even more problematic. Gregg Vanderheiden, at the Trace Center, was pointing out in 2001 that this term should not be used without some qualification. An offering may be 'more accessible', 'less accessible' or even accessible to a very specific group of people, but never just 'accessible'. We might think of a facility as 'accessible to English-speaking people', 'accessible to people with low incomes' or 'accessible to people with a disability' but, in each case, we are silently acknowledging that it will not be accessible to all of them. Then what is an 'accessible' telephone? Can there ever be such a thing? There could be a telephone which meets all of the criteria in a published set, which is a useful categorization but its usefulness is only as good as the criteria themselves. Any attempt to extrapolate beyond the intended context leads to difficulties, with the risk of finding that there are people who cannot use the so-called 'accessible' facility. The authors of criteria sets are generally aware of the limits of their work but others may use the description 'accessible' as a convenient shortform, with the danger that a particular set of criteria comes to be seen as the practical definition of what is 'accessible'.

The starting point for 'accessibility' is 'usability'. Usability is taken to mean the ability of a defined group of people to make use of the product or service. A book is usable by people who can pick it up, turn the pages, view the content and comprehend it. It is not usable by people who, because of disabilities, cannot handle it or see it. If it contains text written in (say) German, it will not be usable by people who do not understand that language. The book can be made usable for many of these people in various ways, although it may not then be the same book, or even a printed book at all. For all the people who are excluded from comprehension of the book for whatever reason, it is not accessible to them and will remain so unless steps are taken to improve its usability in their particular circumstances. 'Accessibility' therefore can be regarded as a measure of the extent

to which groups of people other than the originally intended users can be offered the experience of using the item in question.

Two points emerge from this simple example. Firstly, with traditional technologies the intended users are defined by custom and usage. Printed books have always been aimed at users who can access and appreciate them, so the task of improving their accessibility has fallen largely to agencies outside the mainstream book trade. With new technologies there is an expectation that accessibility issues of all kinds will be addressed at or even before product launch, which is a culture shift that is not apparent to all. The message for developers of standards is that this is now a mainstream issue and not something to be addressed in niche markets. Secondly, it is not a once for all issue. Improved accessibility is a continually advancing objective requiring constant examination of the types of people who are not given access. The consequence is that a wider skills base is now called for in standards Committees.

Inclusive Design - Design for All

The points raised in the previous section can be addressed by the process of Inclusive Design, also known as Design for All. While it does not mean that all intending users can be given immediate access, it does signify an iterative process to improve accessibility by widening the target user population each time the design of a product or service is re-visited. This process ought to be as fundamental to the design function as the inclusion of quality parameters, that is, an integral component and not a feature to be added at the last moment. As with quality, there are general standards for the Inclusive Design process, which can and should be cross-referenced in the standards for specific items.

Standards complementing Directives

This section has so far been concerned with the standards that amplify the New Approach in EU Directives, that is to say, those standards which are accepted as describing how the essential requirements of a Directive might be met without claiming to be the only route to achieving conformity. These standards are still voluntary, in that other methods of showing conformity with a Directive may be utilised, although these may be less straight-forward or less convenient.

It is unusual for exact compliance with a standard to be demanded by legislation, but there are other ways of giving a standard legal force. One such way is through a legally binding contract and contracts in the public procurement arena offer a most important example.

Standards in Public Procurement

A new Public Procurement Directive, which Member States were required to implement by 31st January 2006, replaces a set of earlier Directives and amendments dating back to 1992/93. These themselves replaced previous Directives. The importance of Community legislation in this area arises because public sector contracting could otherwise lead to serious breaches of the open principles of the Single Market. Public bodies would often frame contractual procedures in ways that were familiar only to the regular bidders for the contracts, and this made it very difficult for an outsider to get an invitation to tender. The variety of national approaches and technical specifications acted as a deterrent to bidders from other nations and such processes were fundamentally incompatible with the Single Market rules of transparency and fairness. The Community has devoted considerable effort to legislating for open procedures in public purchasing, with strict rules for advertising and awarding contracts. These rules also eliminate the use of technical specifications that would favour particular groups of bidders.

The series of Public Procurement Directives has pushed purchasing bodies towards reliance upon European technical standards and specifications, or the national standards which transpose them, and Member States which persisted in using non-harmonized national standards have been fined heavily. It is possible for a public purchasing body to use non-harmonized specifications, where there are over-riding reasons for doing so (such as the need for compatibility with installed equipment), but the procedures for sanctioning this are lengthy and involve additional work. The simplest course is, as was intended, to use European technical specifications. However, one effect of this has been to deter Member States from writing accessibility requirements into their public purchasing specifications, as such requirements are not commonly found in European technical standards used for procurement purposes. Public procurement has in consequence provided less of a lever to promote accessibility in Europe than it has in the USA, for example, where Government purchasing has had a pronounced positive effect on the availability of accessible ICT equipment.

The new Directive recognised this problem and it goes some way towards adopting accessibility principles while still keeping to the fundamental rules of transparency and fairness. Recital 29 includes the comment "Contracting authorities should, whenever possible, lay down technical specifications so as to take into account accessibility criteria for people with disabilities or design for all users". It adds "The technical specifications should be clearly indicated, so that all tenderers know what the requirements established by the contracting authority cover". In other words, it is not sufficient to require that the items must be accessible in some form or other; the manner of achieving this accessibility must be specified in a way that

allows the tenderer to prove compliance. Recitals are not binding, but the Articles of a Directive are. Article 23 requires technical specifications to be set out in the contract documents, and includes the wording "Whenever possible, these technical specifications should be defined so as to take into account accessibility criteria for people with disabilities or design for all users". This is expanded in an Annex, which deals with the way in which technical specifications define the characteristics required in the purchased items; among the listed types of characteristics are "design for all requirements (including accessibility for persons with a disability) and conformity assessment".

With this new Directive it will be possible to use accessibility criteria in public procurement even where accessible features are not immediately essential to the purchaser's objective. But in order to do this, there will need to be appropriate European standards which set out the criteria unambiguously and include tests for conformity. Developing these will entail dealing with the same issues that have been described in previous sections. The Commission has published a mandate to the European Standards bodies in order to urge this work forward, but there are no doubts as to the magnitude of the task .

Mandate M/376 requests CEN, CENELEC and ETSI to develop European accessibility requirements for public procurement of products and services in the ICT domain. The main objectives of the Mandate are:

- *to harmonize and facilitate the public procurement of accessible ICT products and services by identifying a set of functional European accessibility requirements for public procurement of products and services in the ICT domain, and*

- *to provide a mechanism through which the public procurers have access to an electronic toolkit, enabling them to make use of these harmonized requirements in procurement process.*

It is hoped that some drafts can be available in 2008. There will be involvement by key stakeholder groups including disability organisations and close cooperation on an international level with other standards bodies. This should give an opportunity for comparison with the U.S. Section 508 Accessibility Guidelines, which are to be reviewed in 2007.

It is especially important with public procurement standards that the tenderer is able to know, at the time that the bid is submitted, whether the offering meets the technical conditions of contract. Transparency rules prohibit a public purchaser from lining up the submitted items and making a subjective choice, or even a

choice based upon the outcome of a user evaluation. The conformity tests to which the offerings will be subjected must be described in the tender invitation, and they must be capable of replication in any test situation or laboratory. This places further demands upon the Standards writers to produce precise objective criteria that are capable of independent conformity verification.

Several European public procurement authorities have already been considering how to address accessibility issues in their tendering and some have successfully introduced their own sets of accessibility criteria but, in the absence of harmonized European Standards, these criteria have to be approved case by case through a process involving consultation with all the EU Member States. It is clear that a set of appropriate European Standards, that can be simply called up in any invitation to tender, has to be available before public procurement can become a really effective lever in promoting more accessible products.

Verification and Certification

Wherever conformity to a Standard is required or claimed, there is necessarily a procedure for verifying that conformity. The supplier may carry out his own assessment, using the test procedure laid down in the Standard, or an independent body may perform the testing. In EU legislation, only the most critical or potentially dangerous products have to be tested by an independent approved test house. For most items, a self-certification by the manufacturer or supplier is considered adequate, and this form of certification will usually form a part of the Declaration of Conformity that is obligatory in the Single Market Directives (leading to the application of the CE mark). Self-certification is not an easy option. The supplier will be guilty of making a false trade description if the claimed compliance is found to be unwarranted, and the penalties can be severe, especially if compliance is a legal requirement, for example as part of a Directive or a condition of contract. With independent testing, it is the test house which is liable if the report is in error. For this reason, many suppliers will use an independent test house rather than their own test facility in order to achieve greater confidence in the outcome.

Mostly, however, conformity with accessibility criteria is not a legal obligation in the EU, and sanctions are only likely to apply if a false claim is made by a supplier in the course of trade. A supplier may make a very non-specific claim as to the accessibility of his offerings, without referring to any particular Standard, or no claim at all, so that disappointed users would have no redress – and no information as to which products on the market might suit their particular needs. In these circumstances, users have to rely upon post-market testing by evaluation organisations, that is to say surveys and test reports aimed at giving independent

information to consumers. The procedures here are very different from formal conformity assessment. The evaluators are free to use whatever evaluation protocols they consider appropriate, and will often recruit panels of users to carry out actual or simulated 'real life' assessments of the products. The evaluation body may even award its own certification mark to products that perform well, but this is for the information of potential users and has no legal status. For as long as formal accessibility standards are embryonic, however, there will be a possibility that post-market evaluation of this kind is more effective than reliance upon the standards. In other words, the standards themselves need to be tested.

Quality Standards

There is an extensive and well-established set of European and International Standards dealing with quality. Quality, like accessibility, is not a fixed quantity; a product or a service may be intended to have a particular quality level. The object of quality assessment (or quality assurance) is to ensure consistent quality at the desired level. Quality approvals are given to suppliers by registration bodies, who periodically audit the in-house procedures operated by those suppliers to ensure that they are both robust and fully observed. This process could be applied to a supplier's approach to accessibility issues, for example by writing an accessibility assessment section into the Design Manual and the Production Manual. The same results could be obtained from a quite separate registration system, but this may be superfluous if an Accessibility Guide could be drafted for inclusion in the already familiar structure.

5.1.3 Conclusion

The thrust of European Regulation in the ICT sector has been primarily to support the principles of the Single Market and to recognise the contribution of this sector to the European economy. Consumer protection elements have concentrated upon privacy and confidentiality matters, with some acknowledgement of public service issues such as universal service in telecommunications. However, the latter has tended to centre upon legacy notions of fixed line telephony practice and little heed has been paid to newer technologies which have been rolled out unevenly across the EU Member States. Liberalization of the former state monopoly networks has created a division between networks and terminal provision, such that the market for terminal equipment is now driven almost entirely by market forces. The regulatory regimes are chiefly concerned with the avoidance of anti-competitive practices and, while the commercial freedoms have encouraged a vigorous development of new and attractive services, those consumers who are not

well served by the forces of a highly competitive and innovative market have little protection. Chief amongst these disadvantaged consumers are those disabled and elderly people who have little economic power and consequently find that their needs go unheeded. The future trends in regulation are now being determined but it seems that the ultimate direction is likely to be one of less regulation to suit a global market-place, rather than one of more regulatory control over the EU's internal market.

If this is to be the scenario, it poses the question of how best to protect the interests of disadvantaged users without hampering innovation and investment. Horizontal anti-discrimination legislation would be one approach but it would appear that the expanding EU Community is not yet ready for this. An extended and up-dated concept of universal service would be another; the EU has plans to look at this in 2007. Writing specific requirements into existing Directives, as they come due for review and revision, would also be possible but the scope is limited because of the diversity of needs and the necessity of keeping the basic types of legislation technologically-neutral and future-proofed.

A quite different approach – which is not mutually exclusive – is to make use of other forms of leverage which could influence the attitude of commerce and industry towards disadvantaged consumers. Awareness of needs and business opportunities is one such. The population size is considerable and although there is a great range of needs – not to be met in a single action – there is potential for a growth in market share with relatively small changes in design concepts. The Inclusive Design/Design for All approach is based upon this notion, with a gradual – not a sudden – expansion of the target user base until, with repetition, a much larger segment of the general population is catered for.

The effective use of standards is crucial to such approaches. Even where standards are voluntary, it is usually in the best interests of manufacturers and suppliers to comply with them rather than seek to support their product claims by other means. In public procurement contracts, standards take on a legal significance that can influence a supplier's attitude towards serving his other customers. The inclusion of Inclusive Design/Design for All principles in a whole range of standards should become as commonplace as reference to quality standards. The scope is enormous and so is the task, for there is need of many more standards that take account of accessibility needs of people with a disability in the ICT sector. However, there are many bodies worldwide that are giving serious attention to this task and, with co-operation, a raft of European Standards that could support and complement regulation will eventually appear. Not least, standards are an important force in industry and trade, which is why these sectors are actively involved in preparing

them. Causing the Standards Organisations to take a pro-active role in looking at accessibility issues for people with a disability will automatically engage the industry bodies.

There is good reason to believe that this process has not only begun but is gathering momentum.

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5.2 eAccessibility: European developments and targets

Ima Placencia

5.2.1 Introduction

We live in an information society. Information and Communication Technologies (ICT) permeate almost every aspect of our lives. They can be powerful tools for bringing people together, adding new value to life and creating new wealth, health, welfare, making for a richer and more rewarding professional and social life.

However, in Europe (and elsewhere) millions of people cannot fully reap these benefits and a significant percentage are effectively cut off from them: today, people with disabilities are estimated to make up close to 15% of the European population or 90 million people. Many of them encounter barriers when trying to use ICT products and services. In fact it is difficult to imagine how people with disabilities would be able to enjoy their fundamental rights when accessibility to ICT is not a reality.

The prevalence of both disabilities and other minor functional limitations is strongly related to age. It is estimated that 45% of those persons above 75 years of age are impaired in one way or another in their daily life. The ongoing demographic shift in Europe, as a result among others of a greater life expectancy, will cause a noticeable increase in these numbers over the coming years -- 18% of the European population was aged over 60 in 1990, while for 2030 that percentage is expected to rise to 30%.

Accessible (ICT) can improve the quality of life of people with disabilities significantly.

The European Commission has the ambitious objective of achieving an Information Society for All. This means overcoming the barriers that technology creates for people with disabilities, elderly people and many other users. The Commission wants to ensure an inclusive digital society that provides opportunities for all and minimises the risk of social exclusion.

To achieve the goal of developing such an Information Society for all it is necessary to pay attention to groups at risk of exclusion because of accessibility problems, namely to people with disabilities and in certain cases older persons, who form a large group that represents about 20% of the population in Europe.

* Disclaimer: The views expressed in this article are those of the author and do not necessarily reflect the official European Commission's view on the subject

5.2.2 The eAccessibility Communication

The Community relevance of this subject is well reflected in the initiative launched in 2005 that is called "i2010 – A European Information Society for growth and employment". The i2010 initiative presents a new strategic framework and broad policy orientations to promote an open and competitive digital economy, emphasising (ICT) as a driver of inclusion and quality of life. One of the 3 pillars of the i2010 initiative is intended to develop "An Information Society that is inclusive provides high quality public services and promotes quality of life".

In order to raise the visibility and provide policy guidance on these issues the Commission proposes, among others, to publish an eAccessibility Communication. The Communication was published on September 13, 2005. The main objective of this Communication is to promote a consistent approach to eAccessibility initiatives in the Member States on a voluntary basis as to foster industry self-regulation. Two years after the publication of the Communication a follow-up on the e-Accessibility situation will be made. The Commission may then consider additional measures, including new legislation if deemed necessary. Community action is needed to ensure the inclusion and participation of all Europeans.

In the context of achieving the goals of the Lisbon agenda it is important to mention that large differences exist in employment rates of people with disabilities when compared with the general average in the population in Europe. While 52% of people with disabilities are economically inactive the average in the general population is 28%. Furthermore 42 % of people with disabilities are employed compared to a general average of 65%.

Considering the European goal of improving the level of employment of people with disabilities, and the fact, reflected in the European competitiveness report of 2004, that average government employment is 16,7 of total employment in EU 15 (some countries go up to 30%), with general expenditures in 2003 of 49% of GDP it is evident that governments have an opportunity to promote employment of people with disabilities through accessible workplaces.

Coordinated action by EU Member States is needed to make information and communication technologies more accessible to people with disabilities and older persons.

Public consultation

The Communication took into account the answers of a public online consultation in the domain of eAccessibility launched in January 2005 by the European Commission. The respondents provided a good coverage of the target groups

users, industry, public authorities and accessibility experts. It is important to mention that 55% of the respondents were experts or professionals in the area of accessibility and 1 out of 4 respondent stated that they were users of some kind of eAccessibility product or service. Furthermore, 90% of the 500 respondents (public agencies, ICT goods and service suppliers, universities, business associations and user groups) say that requirements to make (ICT) goods and services accessible to elderly and disabled people should be laid down in public procurement contracts. Stakeholders also say that EU institutions should take the lead in proposing these measures (88%). Although there is clear support for some form of product certification or a "labelling" scheme (72%), stakeholders are fairly evenly divided on whether this scheme should be voluntary, mandatory, and/or rely on self-certification with checks.

5.2.3 New eAccessibility approaches

In the Communication, the Commission fosters the use of three approaches not yet widely used in Europe as well as strengthening and continuing several activities that are already underway.

The three new approaches are:

1. Public procurement:

The revised Directives on public procurement contain specific references to using Design for All and accessibility requirements as possible criteria for selecting among tenders. There is a strong need for consistency of accessibility requirements in public procurement in Europe in the ICT domain. The experience in the US with section 508 of the Rehabilitation Act has shown the positive influence of public procurement in promoting accessibility. The European public sector ICT average spending is 0.8% of the GDP. The European Commission held an international workshop on harmonisation of eAccessibility requirements for use in the public procurement of ICT products and services. Main findings are summarised in a publicly accessible report:

http://europa.eu.int/information_society/policy/accessibility/regulation/
index_en.htm.

Taking all this into account, the European Commission proposed to the Member States the development of a European standard for a toolkit for eAccessibility requirements to be used in public procurement. A mandate was issued at the end of 2005 to the European standardisation organisations CEN, CENELEC and ETSI. The work for the Mandate is expected to have started by the end of 2006.

http://europa.eu.int/information_society/policy/accessibility/deploy/pubproc/eso-m376/index_en.htm.

The main objectives of the mandate M-376 are to harmonise and facilitate the public procurement of accessible ICT products and services and to provide a mechanism through which the public procurers have access to an electronic toolkit, enabling them to make use of these harmonised requirements in procurement process.

Even though the most significant field of application of the results of the mandate is public procurement, the results might be useful for other purposes like procurement in the private sector. Public purchases constitute an important market: total public procurement in the EU (15) amounts to €1.500 billion or 16% of the Union's GDP.

The work will be done by two combined project teams, an ETSI Specialist Task Force (STF) and CEN Project Team (PT).

The work of ETSI will consist of:

- *An inventory of ICT products and services (grouped in technical areas) that are usually bought by public procurers*
- *A list of existing functional accessibility requirements in Member States and internationally for those ICT products and services within each technical area, particularly those currently in use in public procurement*
- *In each technical area gaps will be identified where no accessibility requirements exist and suggestions will be provided for developing missing or additional requirements*
- *A list of existing national, European and international standards and technical specifications will be identified which might comply with those requirements. An assessment will be made on whether the above mentioned requirements can be used as either technical specifications or as criteria for awarding public contracts*
- *Finally a proposal will be made for a standardization work programme for the development of requirements and award criteria that still do not exist.*

CEN will establish a Project Team to provide an analysis on testing and conformity schemes of products and services meeting accessibility requirements. The analysis will refer to existing schemes of this nature at European and international levels. The analysis will consider the full range of possible solutions, including supplier

self-declaration, certification/ accreditation of suppliers, and third party certification schemes.

The results of both CEN and ETSI will be submitted to open public consultation and will be approved by both organisations.

In this context of accessibility and public procurement, a dialogue has been established between EU and US on the "Exchange of information regarding the planned use of ICT standards in support of Regulations and other Public policies", in the field of Accessibility policies.

2. Certification:

Possibilities for the development, introduction and implementation of certification schemes for accessible ICT products and services will be explored. The goal is to provide guidance to customers and recognition to manufacturers and service providers. The various possible schemes will be investigated and the different options will be compared for their effectiveness. In that context the International workshop on conformity assessment supported by the Commission in 2006 clarified the need for clear, unambiguous testing methodologies that lead to consistent results whether the testing is done in house or by third parties.

In the above mentioned mandate the Commission has asked the European standardisation organisations to prepare a report that will present an analysis on testing and conformity schemes of products and services meeting accessibility requirements. The analysis shall refer to existing schemes of this nature at European and international level. The analysis shall consider the full range of possible solutions, including supplier self-declaration, certification/ accreditation of suppliers, and third party certification schemes.

The analysis shall also address existing or propose requirements for suppliers' technical capacities and abilities in the accessibility domain, which can be used for the selection of suppliers or in support of the conformity process. The intention is to submit this report to an open and accessible review process to facilitate feedback from all interested parties.

It is important to mention that in the 2005 consultation of the Commission mentioned before, there was a clear support for issues like accessibility certification and labelling but with a significance variance between 80% support in groups related to "public agencies" and individuals with disabilities, only 61% of manufactures providers or sellers support it while 32% reject it outright.

3. Explore legal measures.

Legislation demanding accessibility exists already in some Member States and in countries outside Europe. This trend is increasing. There is risk of market fragmentation if accessibility requirements are similar but yet with small divergences, this should be avoided in Europe. In Europe, several legislative documents already have provisions which can be used to enforce eAccessibility. The full potential of this legislation will be be explored in order to advance eAccessibility in a coherent manner.

The new regulatory framework for electronic communications entered into force in July 2003.

Under the New Regulatory Framework a committee called the Communications Committee (COCOM) with Member State representatives was established to assist the Commission in exercising its powers. In February 2003, the COCOM established a special working group called Inclusive Communications (INCOM).

Throughout its work, INCOM has focused on the user perspective, identifying the constraints and problems users with disabilities face in accessing and using electronic communications as well as potential problems and opportunities relating to new and future technologies and applications. The new regulatory framework contains a series of rules and principles that ensure that the liberalisation of the electronic communications market does not occur at the expense of end-users, but brings benefits to them. It assumes that competition and market forces are the most effective means to satisfy user needs, but provide national regulatory authorities (NRAs) with the necessary powers to act to protect users where they need to do so.

Disabled users must enjoy the same rights arising from the Directives as any other end-user. This applies whether these rights stem from the provisions relating to universal service obligations placed on designated undertakings or from other specific provisions (e.g. number portability) which allow end-users to derive maximum benefit in terms of choice, price and quality.

This INCOM report refers to areas, where users have encountered serious problems. Some are directly related to articles in the Directives, in particular the Universal Service Directive and the Framework Directive but some go beyond the Directives. The key urgent topics identified are:

- *Access to national emergency services*
- *Access to telephone services for deaf/hard of hearing/speech impaired/deaf-blind persons*

- *Access to public pay telephones*
- *Access to mobile telephones*
- *Access to directory services*
- *Access to broadcasting, digital television and related services.*

The report provides a series of recommendation to address each of the issues and solve these accessibility problems suggesting concrete actions by public authorities, regulators, industry, operators and users.

The mandate of INCOM was subsequently extended to foster the implementation of the suggestions laid down in the above mentioned report and to provide input on accessibility matters in the revision process of the Electronic Communication Directives package.

In April 2005, a questionnaire was sent to the Member States through COCOM on "the Electronic Communication Package: issues related to disabled users". The aim was to assess the implementation of the legal provisions dealing with disabled users in the Member States, to ensure follow-up of the key problems identified in 2004, and to identify best practices.

The information provided through the questionnaire reveals that the problems identified in the 2004 report remain, confirming the frequently disadvantaged situation of disabled users in Europe, in relation to availability, choice, quality and price of electronic communications. Furthermore, there is very often a lack of information in the Member States on the practical situation of disabled users vis-à-vis access to and use of publicly available telephone services, and of the problems they are confronted with in everyday life. As a consequence, the national provisions do not – or seldom – address specifically disabled users' concerns. Furthermore, the implementation of the provisions of the Directive into national legislation has often appeared to be a "copy-paste" exercise of the compulsory provisions, while the potential of the non compulsory ones have not been exploited.

More worrying is the fact that the problems identified in 2004 do not seem to have been addressed since then as there is still no comprehensive solution in all Member States for disabled users to call the single European emergency number 112; the accessibility to public pay phones is not addressed in a harmonised way in the Member States; text telephones used by deaf users are not interoperable across Member States or across networks; etc.

Some countries are showing some examples of Best Practices by adopting specific measures in the interests of disabled users. For instance, some Member States impose special tariffs to ensure affordability for disabled users; some countries propose text telephones and relay services for deaf and hearing impaired users; some countries impose a legal obligation to provide terminal devices enabling hearing impaired people to access publicly available telephone services, free access to information services for visually impaired users, special telephone number for deaf users to access 112; some countries impose an obligation upon service providers to provide copies of contracts and bills in a form suitable for visually impaired customers. However, there does not seem to be a comprehensive and a coherent action to address the needs of people with disabilities. One of the probable reasons for this could be the lack of information in the Member States about the situation of disabled users.

The INCOM group made a set of the recommendations that will be provided as input to the review process.

In the current legislative framework, telecommunication terminals fall under the Radio and Terminal equipment directive. The group of Member States representatives that support the implementation of the Directive is called TCAM. In 2004, in order to improve accessibility of terminals and to address the issue of real time text communication, discussions were held in TCAM on the need for regulation to ensure accessibility to telecommunications services. Notably the aspects of real-time text communications related to cross-border (and international) communications and access to emergency services (112). Market forces have as yet failed to ensure seamless service, interoperability and access to 112. There furthermore was a risk of fragmentation resulting from national procurement practices and financial support structures. In March 2005 a subgroup was created with Industry and NGOs and were given the task to propose a road map to identify and tackle bottlenecks in this area. There were 2 working groups, the first one on accessibility requirements for conversational systems for deaf and hard of hearing persons in particular text and video communication and the second on accessibility features of mainstream products. The results of both groups were inconclusive. While there were very relevant technical contributions it was evident that no agreement was reached on the drafting of a road map. Furthermore, it became apparent that industry was not in a position to commit to a roadmap.

Demonstrations made at the recent meetings show that technical solutions are possible in the area of text communications. These use the flexibility offered in current state of the art terminals that have multimedia capabilities to provide real time character by character text communication. Investments to run the service

seem moderate and mainly consist of running a server and develop some add on software for the terminals. These systems are however still in the trial phase and therefore charge and management costs are as yet unknown.

These solutions have been developed nationally with local funding, but moreover are not interoperable among themselves or across networks and are often platform dependent. They provide a limited solution for a local community often driven by a user organisation. They furthermore are not designed to interface with mainstream instant messaging services (e.g. MS messenger) and their users therefore are deprived from using a single messaging service

As regards the accessibility features of mainstream products, it was observed that currently add-ons such as separate key boards do not have standardised interfaces and remain device or platform specific. Technologies responding to disabilities other than hearing impaired, seem to be less developed. In addition user associations, that develop special solutions report on difficulties to get information on terminal proprietary software and note inconsistencies in functionalities of the interfacing making it difficult to interact with assistive technologies.

Since the attempts to arrive at a voluntary roadmap have failed, TCAM should now consider which consequences should be drawn.

It remains uncertain whether market forces will lead to a level of harmonisation that will enable seamless and ubiquitous services and interoperable terminals. Public authorities, certainly where they are supporting certain technical developments, should give prominent attention to the need for seamless cross-border and multiplatform services.

TCAM is reflecting on the adoption of regulations under article 3.3.f, which would ensure that no barriers are caused by terminal equipment to establishing pan-European interoperable services and proposed the committee an outline for a first Commission Decision to address these issues. The Commission is consulting the Member States and further action will depend on the results of these discussions.

5.2.4 Ongoing activities at EU level

Several types of actions have been promoted by and supported by the Commission for more than 10 years having a clear impact on eAccessibility in Europe. However it is clearly identified that further action is needed in this field. In order to reach the goal of a Knowledgeable and Sustainable European Society for All, two fundamental challenges must be met to continue making new technologies and technology-based systems accessible to all and continue to apply technology to the

task of genuinely empowering all citizens to play a full role in society. Designing ICT products and services from the very beginning so that they can be used by the widest possible population following "Design for all" methods instead of retrofitting accessible solution is essential for the creation of a sustainable Information society for all.

1. Accessibility requirements and standards. European Standards on eAccessibility would contribute to the proper functioning of the Single European market. The Commission continues to support the development of Accessibility standards also in the ICT domain while at the same time promoting their implementation and use.

2. Design for All: It is important to spread widely the knowledge and use of Design for All methods, practices and tools. Introducing Design for All in the education of future information society professionals is a way of investing in a more accessible information society. The Commission is promoting the work on the ICT European Curriculum in Design for all and enhancing the cooperation of key actors through the EDeAN network created under the eEurope action plan. The basic skills and knowledge for a European Curriculum for "Design for All" has been developed by the idcnet project http://www.idcnet.info/home The results can be found at the European design for All and eAccessibility network of National Centres of Excellence (EDeAN): http://www.edean.org which provide a resource centre in Design for All and exchange of information on courses. Furthermore in order to raise awareness on Design for All, the European Commission issued the first European Awards "Innovation in Design for All and Assistive Technologies" at the REHACARE International in Düsseldorf in November 2004,

3. Web accessibility : The eEurope 2002 Action Plan included one action line on improving the accessibility of public Web sites by adoption of the Web Content Accessibility guidelines (WCAG 1.0) developed by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C). The nominated actors for this action line were The European Commission and the Member States. The Commission produced a Communication[1] including many recommendations for implementation. Other EU Institutions responded to this Communication, supporting the actions undertaken and suggesting further measures. One of the actions requested by the Council is a common methodology for the evaluation of the progress made in order to obtain comparable data. To date all the Member States and EU institutions are applying the guidelines to public sites at European and national however, a common monitoring mechanism is still to be put in place the results of the various studies however show agreement on the fact that there is still a very low level of accessibility on the public web sites in Europe today. There is a need to have results of the monitoring exercises published in order to

[1]COM(2001) 529 final of 25.09.2001

benchmark the improvement in Europe. Benchmarking will stimulate each country to energise their process.

Also in the long run, accessibility should not be treated as a separate issue but should be integrated in relevant government activities in particular all global Web quality control mechanisms at all levels (Web masters procedures, administrations audits, etc).

Furthermore, the need to formally assess and certify accessibility of public web sites has emerged as a priority in the Member States after the adoption of the Web Accessibility Guidelines and is currently under exploration. A number of projects are developing a European methodology to monitor web accessibility of public websites in Europe: project BenToWeb, http://bentoweb.org/home ; Project EIAO, http://en.ftb-net.de/projekte/eiao.html; Project Support-EAM, http://www.support-eam.org; The first version of the methodology has been released in October 2005. The Information Society is rapidly developing to respond to these changes, the WAI is now preparing its second version of the guidelines, to follow these technological developments. The Commission is supporting the research work on web accessibility in W3C through Project like the WAI TIES http://www.w3.org/WAI/TIES/.

4. Benchmark and monitor. The eAccessibility Communication recognised the need to set targets for accessibility and monitor progress. Several Member States are introducing benchmarking for accessibility and monitoring in their national legislation. It is essential to have European data comparable across Member States. In order to measure eAccessibility progress in Europe the Commission issued a study with the objectives of identifying measures (e.g. policy, legal, industrial, …) that have a significant positive impact on eAccessibility and that support the Community eAccessibility strategy. The idea is to assess how ICT products and services available in Europe take into account eAccessibility and Design for All. The study will develop indicators to assess the eAccessibility situation in Europe and to measure its evolution quantifying the impact of the proposed approaches and measures. Furthermore it is important to assess the implementation of successful measures, that can serve as policy recommendations in the eAccessibility domain.

Some of the expected results are the identification of existing methodologies and indicators and the development of a methodology to monitor and identify the existing use of the 3 proposed approaches mentioned above and other existing positive actions.

A methodology and adequate indicators will be developed to measure the rate of eAccessibility in the Member States, experienced by people with disabilities and older people, as well as the rate of eAccessibility, experienced by other stakeholders.

The first measurement and analysis of the data is expected by the end of this year. A second measurement and analysis of the data will happen a year later and this will enable measurements to be compared and evolution to be assessed. The final report including conclusions and policy recommendations and two workshops to disseminate and validate the results of the methodology, measurements and the conclusions will serve to provide evidence for the report that the eAccessibility Communication announces for two years after publication.

5. Research remains a key instrument to investigate new technological solutions to address the needs of people with disabilities and older persons. It is a fundamental element in the way towards an accessible Information Society for all.

DG Information Society and Media has worked since 1991 in Research and Technological Development for people with disabilities and older persons in several programmes: Tide (technology initiative for disabled and elderly. Basically in 15 years about 200 Million Euros have been spend in funding approximately 200 projects in all areas of eAccessibility dealing with technologies for people with disabilities and older persons. Projects have developed Assistive solutions including restoration and enhancement of function, access to technology and related services, life at home and remote care, access to mobility and transport, applications services for elderly and disabled users and for their carers, Design for All of mainstream ICT and Long Term Research on a deeper understanding of the cognitive, perceptual and sensory processes in relation to disability and technology), and within the Framework programmes.

The European Commission has issued several call for proposals within the 6th Research Framework Programme. On going RTD projects can be found at http://www.cordis.lu/ist/so/einclusion/home.html

The first call for proposal for FP7 is under preparation. In the Commission proposal for the 7th RTD Framework Programme there is a section called ICT and inclusion that addresses inter alia disability and ageing (see more at http://www.cordis.lu/ist/so/einclusion/) as well as a proposal for an initiative based on Article 169 particularly relevant for older persons with multiple disabilities. As technology evolves and new ICT products are introduced in the market on one hand new opportunities for accessibility emerge. However, RTD work on eAccessibility remains essential to prevent new accessibility barriers and develop

state of the art assistive solutions. Many of the above policy actions that have been and are undertaken complement RTD work and are important for the take up of RTD results in the market so that they can be incorporated in products in the market.

Finally, the Commission will measure progress on eAccessibility and present a report in 2 years proposing new measures including new legislation if deemed necessary. This action is part of the i2010 initiative.

Regarding the involvement of disability organisations and disabled users, although there is no mandatory requirement, since 1991 it has been common practice to involve them at the consultation level when preparing the work programmes, at the evaluation level (inviting experts with disabilities in evaluations) and in the project execution level.

5.2.5 Conclusion

The commitment of the Member States and the European Commission towards the actions carried out under the umbrella of i2010 and announced in the eAccessibility Communication have been confirmed by the Riga declaration.

http://ec.europa.eu/information_society/policy/accessibility/eincl/policy/2006-riga/index_en.htm

Member States agreed not only to support the actions proposed in the eAccessibility Communication but also to explore the possibility of making mandatory by 2010 European eAccessibility standards and common approaches in public procurement for ICT products and services.

Furthermore they confirmed their commitment to ensuring accessibility of all public web sites by 2010, through compliance with the relevant W3C common web accessibility standards and guidelines.

Finally, during the next two years the Commission will continue to raise awareness, promote the use of the proposed instruments, gather evidence and consult stakeholders in order to take informed decisions in the eAccessibility domain. This work will be used by the Commission to evaluate policy options and identify additional measures if deemed necessary to improve the eAccessibility domain.