

# Answer to the European Commission public consultation on the early challenges regarding the "Internet of Things"

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If you are replying on behalf of an organisation, please indicate:

- The organisation's name: **ONCE**
- The type of organisation:
  - private company
  - government/public body/international organisation
  - academic/research institution
  - non governmental organisation
  - other:
- Your organisation details
  - o location: **SPAIN**
  - o size: **70,000 members approximately**

Scope of activities (max 3 sentences): The Spanish National Organization of the Blind (ONCE) carries out actions in favour of social inclusion, equal opportunities, non discrimination and achievement of full citizens' rights of the population it represents and has set itself up as an organized and specialized response in the social field where it cooperates in complementarity with the Spanish State Administration in the development of social protection policies for a sector of the population at risk of exclusion as a result of serious disabilities, such as blindness or severe visual impairment. At the same time, ONCE undertakes to be supportive towards disability in general, developing some lines of action focused on training, employment and universal accessibility of and for people with disabilities.

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ONCE is grateful to the Commission for the opportunity given to all interested parties to contribute to this consultation, through comments on questions raised in the working document it produced, and for the possibility to forward suggestions on the six possible concrete actions that could be taken and are laid down in the mentioned document.

According to statistics (Community statistics on income and living conditions (EU-SILC); Eurostat 2005), people with disabilities represent currently **15% of the total European population** – excluding children with disabilities, elderly people and people with disabilities living in institutions. This means that **over 50 million European people have a disability**, one out six members of the EU population of working age, and this figure will keep growing in the future with the demographic aging trends.

Total participation in the Information Society does not mean only to have access to it, but also that it should be accessible, that its potential can be known and that it offers the possibility to make the most of its products and services. For that, products and services must be adapted to people who want to use them, otherwise many of their advantages would be lost.

The industry is still opening up to the realities of the changing market without exploring the possibilities given to consumers with disabilities and elderly people. It is therefore essential to fight all barriers that prevent full participation of these people, including the economic ones, and so it is necessary to guarantee adequate financial support to enable information technology to be at the disposal of people with disabilities who, otherwise, would be unable to purchase it.

ICT represent a specially important field that offers an invaluable platform and a tool to promote the integration of people with disabilities at all levels of our society (education, employment, leisure, etc.). At the same time, ICT could create (and unfortunately, do create) new barriers for people with disabilities, those barriers could be easily avoided and at little cost.

There are very few mentions to people with disabilities in the working document and we are going to analyze them so that the Commission becomes aware, once again, of the importance of the internet and its future for this very large group of people:

1°.- In the framework of nomadic use of Information and Communication Technologies (ICT), the possibilities to develop new applications of a social character are mentioned and they could be enormously useful in the field of disability, like in the case of supporting travellers with disabilities.

Undoubtedly, for example, support for travellers with disabilities is a very important aspect if we take into account that, currently, almost all tickets are in electronic format and that until very recently, concretely before the coming into effect of the Regulation on reduced-mobility passengers adopted on 26 July 2008, the need for accessible websites, where tickets could be purchased in a totally normal way by anyone, was not taken into account.

In any case, much remains to be done if we want to have fully accessible internet. For example, there is the obligation for websites, and where appropriate, for what users are able to do through them, to be accessible for all, not only for the Public Administrations, even more so when we start talking about “the Internet of Things”, where the Net will become an interaction means for machines, vehicles, appliances, sensors and other devices, and will therefore be the basis for many new applications which must be undoubtedly accessible if we do not want to exclude an important portion of society, the 50 million people who suffer some form of disability.

2°.- Opportunities offered by the nomadic use of ICT in the field of studies or home-based work, are an aspect that ONCE considers of very special interest for people with disabilities.

The number of unemployed people with disabilities is still disproportionately high in spite of efforts being made to reduce it. Information technologies can change this situation by offering home-based jobs or by adapting conventional workplaces to enable the access of many people with disabilities.

New technologies in general, and internet in particular, contribute decisively to the improvement of training levels and the creation of employment opportunities for those who currently remain outside the production process because of their disabilities, they also support the possibility to retain employment because of sudden disability due to industrial accident or other circumstances.

3°.- Regarding innovation promotion in RFID systems, the European Commission emphasizes that accessible services, starting with devices or sensors, must be controlled by open interfaces to facilitate the use of devices through multiple applications and to allow the economics of scale/scope, at the same time as helping elderly people or people with disabilities to use them.

In this respect, “**universal design**” states principles that, if correctly followed, allow ALL ICS members to have access to and enjoy the unquestionable advantages brought by ICT.

Regulations to be established in the field of design for all and universal access will have to take carefully into account singularities and severe disability situations suffered by some specific groups of people with disabilities, such as deaf people, blind people, mentally-retarded people, etc.

To this end, **decisions to be adopted, in particular, in the field of RFID systems innovation, and related with internet or ICT in general, must be consulted, debated and negotiated with representatives of people with disabilities, who know their needs and the ideal proposals to meet them.**

4°.- Regarding challenges arising from RFID applications that European policies must face, among which is how to make technologies and services of “the Internet of Things” affordable, understandable and accessible for all, especially for people with disabilities and with specific needs, ONCE considers that the following criteria should be taken into account:

- More financing and support for research
- Participation of people with disabilities in all stages of conception, design and development of Information Society’s products and services
- Development of information and awareness campaigns, aimed both at the industrial world and political decision makers
- Companies that offer their customers electronic invoicing systems, or electronic hiring systems, as well as electronic hiring offers or methods generated by Public Administrations, will have to fulfil accessibility standards for this type of electronic contents or, if not, standards recognized for websites. All this is aimed at creating interaction and relations on equal terms with users with disabilities and the rest of the citizens.

The existence of European regulations on electronic accessibility will contribute to the good running of the European internal market and, as a consequence, it will help

developing new markets and promoting competitiveness and employment. Furthermore, it will decisively help overcoming obstacles such as:

- Lack of cooperation from the industry in this field
- Lack of information on existing solutions for the users
- Lack of awareness at political level in EU Member States on the importance of this type of actions for at least 50 million people
- Lack of interoperable solutions for accessible ICT
- Software incompatibilities with some support devices
- Interferences from and lack of compatibility between ordinary products and support devices
- Absence of harmonized legislation and of guidelines, standards and technical specifications applicable at European level
- Lack of appropriate and adapted services for the needs of specific groups of users
- Physical designs difficult to use and lack of accessible contents
- Lack of clear guidelines to facilitate work of accessible ICT's manufacturers and developers

5°.- It is true that new online devices can help to monitor conditions and behaviour of people with special needs and that they can also offer them adequate medical care.

In the case of people with disabilities, it is essential to guarantee the total accessibility of those services. In this respect, accessibility would include availability of social services for people with disabilities, their accessibility for different types of disabilities in conjunction with the provisions offered by the new net of the future; taking into account that its users can be elderly people not very familiar with internet and new technologies, people with visual disabilities or with cognitive problems, among others.

ONCE considers vital that websites should be accessible, and recalls that ***an accessible website is one that can be used by the greatest possible number of users, including people with different types of disabilities and regardless of technical means***, therefore an accessible website is one that allows people to perceive, understand, surf the Net and interact with it, contributing in turn contents to it. To facilitate navigation for users with special needs, it is necessary to fulfil all accessibility criteria defined by WAI, permanently in force, corresponding to each one of the rules established in World Wide Web Consortium's [W3C] Accessibility Guidelines (<http://www.w3.org/WAI/>).

**The so-called "accessibility online" must be achieved in its broadest sense. It must allow any European citizen, using any ICT tool, to have access to any available website. If not, people with disabilities will never be able to take advantage of the progress that internet has meant.**

6°.- ONCE values very positively the adoption by the Commission, early in 2009, of a **White Paper on ICT standardisation**, because, up until now, the absence of harmonized legislation and applicable technical standards, rules and specifications of European scope, was one of the main obstacles to their full integration detected by people with disabilities.



ONCE is confident that this White Paper will not mean just empty words, but that it will be the starting point to eliminate technological barriers, with the assessment and participation from the start of people with disabilities in all stages of conception, design and development of Information Society's products and services.

7°.- The Commission will also examine the possibility to create a public-private association at European level to deal with research on Internet of the Future and will prepare a report on the subject early in 2010.

ONCE believes that it would be advisable that representatives of people with disabilities should participate in this group to avoid Internet of the Future to start with deficiencies difficult to solve at a later stage, or that could be solved too late when other already more innovative proposals or initiatives would make it obsolete, thus devoting unnecessary resources and efforts to it.

Madrid 27th November 2008