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## E-INCLUSION AND E-ACCESSIBILITY

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**Abstract:**

*Information and Communication Technologies (ICTs) continue to be a major driver of economic and social modernization. Europe is among the world leaders in the development of the digital economy, but there are few problems, like e-inclusion and e-accessibility. Digital convergence is now a reality and the Internet is an essential tool for our economies and daily lives. Broadband is becoming the standard mode of connectivity. Online content is developing fast, mainly in new and user-created content areas.*

**Keywords:** e-inclusion, e-accessibility, digital economy, ICT

New economy or **digital economy** is the result of interaction between computer, telecommunications, Internet and electronics. It is characterized by a series of quite remarkable features of the traditional economy, which are:

1. **A new model of business** (e-business, e-commerce, e-banking, etc.) through intranet and Internet, radically changing their effectiveness, to reduce costs, including the transactional based business to business relationship (B2B), business / customer (B2C), business / employee (B2E), business / government (B2G), government / business (G2B), etc.. More recently, electronic commerce has become the largest expansion as a concrete realization of business, plus the markets and shaping of sui generis scientific knowledge, driven by the unprecedented pace of development of the research and development.

2. **Placed in the foreground application and needs**, which is involved in an increasingly bigger on design, development and use of goods and services, starting from the stage of research and development. From this standpoint, the new economy is an interactive, participatory, achieving the interface between supply and demand on a range of volume and structure in space and time, much more rigorous. The role of the consumer grows mainly in the sense that it may become an important source of innovation, ideas for the manufacturer or forcing innovation in order to maintain or extend the market's increasing comfort or, what is very important, to raise the level of sustainability of economic development.

3. **Competition and cooperation** are two inseparable sides of the digital economy, taking into account the interaction between supply and demand. The

manifestation forms of competition between producers are radically changed the priority to be granted to a consumer in continuous and rapid change, in terms of needs, tastes and requirements so that it forces competitors to cooperate.

4. **Implies a higher consumption of job design**, high level which creates a higher value, new jobs, business opportunities and creativity, by the existence of interconnected and flexible standards that facilitate integration of the need and / or individualization of different consumers. Here that the new economy is "scintintensivă" and "artintensivă".

Digital economy is considered a superior form of economy in general. This comes from its economic effects, namely reducing the consumption of resources, increasing entrepreneurship and innovative entrepreneurs, labor productivity growth, production and speed of change economic phenomena and processes, increase the value added, etc..

New economy is subject to the principle that "the more people involved the bigger benefit for everyone involved".

### **E-inclusion and e-accessibility**

Accessibility is part of the e-inclusion, along with reducing differences in the availability, cost and skills of digital.

E-Inclusion means all actions to be taken to create an inclusive information society, namely the information society for all. The aim is to enable each person who wishes to participate in the information society, despite a personal or social disadvantage. E-inclusion is necessary for reasons of social justice, to ensure fairness in the knowledge society. It is necessary also, for economic reasons, to use the full potential of the Information Society presented to increase productivity and reduce costs caused by economic and social exclusion. Finally, an inclusive information society presents many opportunities for the ICT market.

E-inclusion is an important factor for achieving the objectives of economic and social development set by the i2010 initiative - An Information Society for growth and employment and, implicitly, the goals set by the Lisbon Agenda.

Indeed, reducing the differences in terms of broadband connections and accessibility or improving skills leads to new jobs and services. First estimates indicate that the benefits generated in the EU could have a value of between 35 and 85 billion over five years.

Given the importance of ICT, the inability to access or to use them is one of the main forms of social and economic exclusion. Digital persistent disparities affected the cohesion and prosperity.

Preconditions for participation in the information society are the availability of ICT access at affordable prices and ability to use them. Currently, there are still many people who can not benefit fully from the opportunities offered by ICT because of these preconditions are not fulfilled.

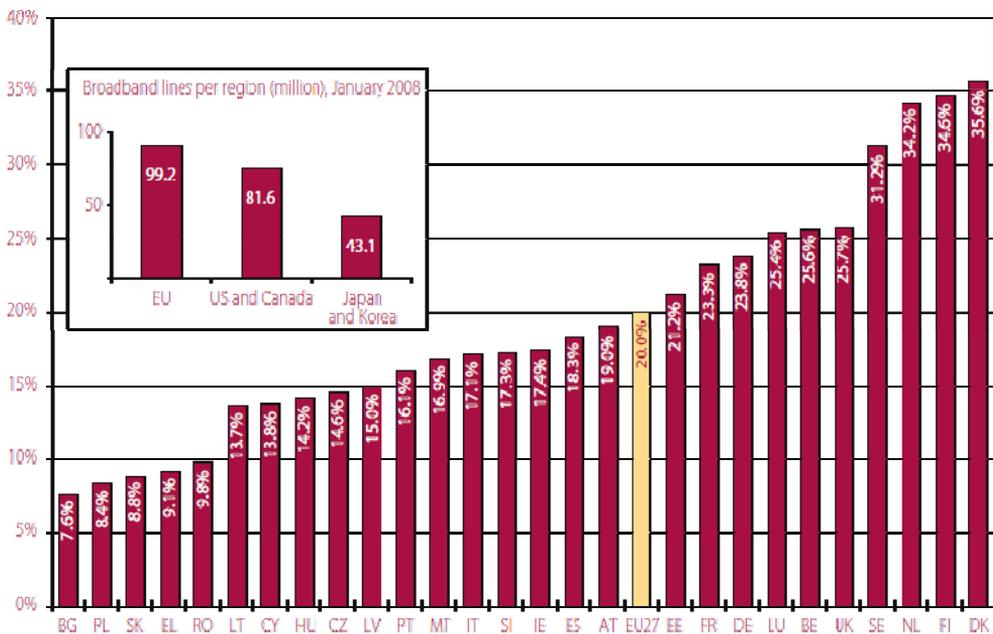
Information Society in Romania is at a low level of development, which positions on the latest places in European Union. In 2007, place 27 in terms of

percentage of users who use the internet regularly, with a percentage of 22% near the EU average of 51%. In the EU, Romania is ranked 27 positions in the following categories:

- ✓ Percentage of enterprises connected to the internet (37% and EU average is 77%)
- ✓ Use of e-mail
- ✓ Search for information about goods and services
- ✓ Reading of electronic journals
- ✓ Percentage of public services for citizens (8% while the EU average is 51%)
- ✓ Percent of population and enterprises that use e-government service
- ✓ Percentage of staff that has knowledge of using ICT

ICT still has a limited role in the Romanian economy. Enterprise connectivity to broadband was 37% in December 2007, one of the lowest figures in Europe and less than half the EU average. Low connectivity results in low levels of e-commerce and low use of e-business applications. The level of digital literacy and eSkills is also the lowest of the EU.

Graph 1: EU Broadband penetration rate (January 2008)



Source: Commission services. Data for FR, NL, AT, EE and LT refer to October 2007.

Some people not have physical access to ICT products and services, especially in broadband connections, and other, can not afford to use these technologies. In addition, the provision of broadband connection with enough speed is crucial to reap the full benefits of the information society. In some years, it will require a

minimum speed of 20 Mb/sec for services, such as telemedicine, which are particularly important for many people at risk of exclusion, especially for older people whose numbers is growing. It is also important awareness-raising on the risks involved in processing, through ICT networks, personal data and educating users in this regard (eg, identity theft, the establishment of profiles in a discriminatory manner, continuous surveillance, etc.).

Use of ICT, especially mobile telephony and internet services, has spread rapidly among many population groups. In recent years, differences of a digital were reduced with regard to the criteria of gender and age or between the unemployed and the working population. But there are structural differences in persistent and challenges which have to deal with. This includes in particular the following:

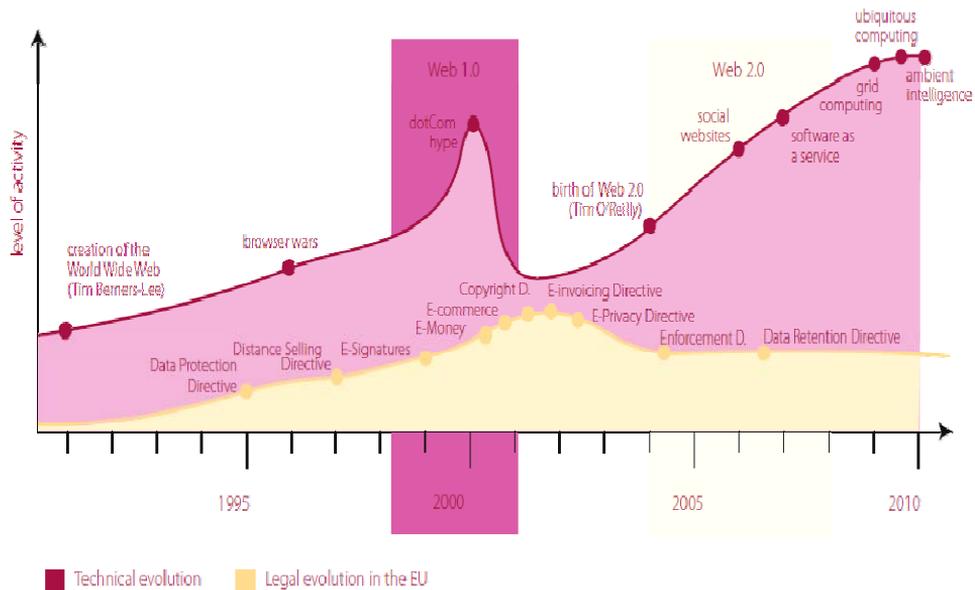
- ICT involved important for many. However, the supply of accessible ICT is still insufficient due to market or other obstacles.
- Differences in information skills persist. As the use of ICT and ICT-based services is expanding, certain population groups fail to keep in step with it, especially people with an inactive or low level of education. Absence of content available in languages spoken by potential users is, still an obstacle.
- There are also differences between schools in terms of broadband connections, the availability of computers and skills in ICT for teachers, and differences between SMEs in terms of exploiting the benefits generated by ICT.
- Although the rate of Internet use is increasing, approximately 50% of the European population doesn't use it regularly. Most non-users are found among people with low education or the inactive population aged.
- Users can, themselves, act but their response is still fragmented and relatively weak in Europe compared with the United States.

However, the supply of ICT solutions at reasonable cost and tailored to specific needs is insufficient. Specific issues on which companies and providers should act are:

- Broadband connections are not yet available in some regions of Europe, differences persist between urban and rural areas and the price of broadband services varies considerably.
- In many countries continue to lack access to electronic services such as web sites, digital television, telephone access to emergency services or public information terminals and new obstacles. This is often caused by structural deficiencies of the market and lack of common approach on the internal market, which creates major obstacles for businesses. Further, technology and consumer services not paid attention to the need for a method of inclusive design / design for all. Thus, the segment e-accessibility, which is several billion, is not exploited (it is estimated that people with disabilities represent 15% of the EU population).
- Overall, the e-accessibility is better in countries that have strong legislation in the field, without thereby constitute an obstacle to the existence of a

market for ICT fully open to competition. Rather, the laws on e-accessibility have created conditions for companies and provide new business opportunities.

Graph 2: Evolution of the legal and technical landscape



Source: DLA Piper, 2007

**Measures to increase accessibility and inclusion**

- Legislative measures and non-legislative (pilot projects, research and promotion) must be brought together, aiming at further international cooperation in e-accessibility.
- Reduce disparities in terms of IT skills among the population at risk of exclusion.

	2007	EU	rank
% of population with no internet skills	71	40	27
% of population with low internet skills	16	29	
% of population with medium internet skills	10	23	
% of population with high internet skills	2	8	27
% of person employed with ICT user skills	9,6	18,2	27
% of person employed with ICT specialist skills	2,5	3,1	24

- Regional and local authorities should focus their efforts to reduce disparities in terms of broadband connections, including the use of structural funds and community development and to promote an inclusive

information society, particularly in remote and rural areas. Equally, should support the development of infrastructure and applications and online services for citizens (e-health, e-governance, e-learning and e-inclusion).

- Finding solutions which respect privacy, for people with sensory, physical, motor and/or cognitive limits, so that they can use digital TV and electronic communications notably to safeguard access to emergency services and interoperability (as the proposed revision of the directives on electronic communications), the current cooperation with users.
- Businesses and users should continue cooperation with the European standards organizations, in particular to establish rules for public procurement of accessible products and services based on ICT.
- Creating a horizontal legislative approach for an information society accessible to all, to guarantee equal rights and an effective internal market.
- Integration of persons deprived of the social through modern online public services. This is the most direct way to promote inclusion, particularly for social services in direct contact with persons at risk of exclusion.

New technologies are a powerful tool but also neutral, which can be used to solve several problems community. However, his real strength lies in its ability to support the holistic development processes that promote social and economic benefits on long-term. More specifically, if information and communication technologies are used effectively, they can help create an educated work force and build a successful economy.

The role of information society in economic and social participation should be included in the Europe agenda.

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