



American Chamber of Commerce
in Romania

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Work Smarter to Achieve a Sustainable Future and a Competitive Economy

- position paper -

The American Chamber of Commerce in Romania's purpose in producing this position paper is to draw together a wide range of expert opinion. Bringing together points of view and analysis business representative from local ICT industry provide a new and compelling action plan to ensure a successful and competitive future for Romania economy.

Statement:

*"To achieve a sustainable future, it must already look beyond the short term. Faced with demographic ageing and global competition we have three options: **work harder, work longer or work smarter**. We will probably have to do all three, but the third option is the only way to guarantee increasing standards of life for Europeans. To achieve this, the Digital Agenda makes proposals for actions that need to be taken urgently to get Europe on track for smart, sustainable and inclusive growth. Its proposals will set the scene for the longer-term transformations that the increasingly digital economy and society will bring about."*¹

We also acknowledged that high political representatives underlined the strategic importance of the Information and Communication Technology (ICT) sector, underlining recently that the sector has generated growth and innovative business models, indicating that the solutions ICT, even during this downturn period, have generated productivity, the capacity to spur innovation and to play a leading role in economic recovery and national competitiveness on the long term.

However, we are equally aware and concerned about recent developments in the economy, under the circumstances required by the criteria and measures resulted as a consequence of the Program of Multilateral Financial Assistance Agreement between Romania and the IMF, European Commission and World Bank.

We are also committed to provide arguments, able to support that the maintaining and developing the incentives for ICT industry as a national competitive advantage to preserve and develop highly skilled occupations in the country, a higher interest of students to choose this profession, this dynamic industry and this country. Development of ICT sector and the upper attractiveness for choosing these occupations, secure the leverage on the long term of highly qualified human resources in Romania, the development of R&D, foster innovation as a major source of growth and development of national competitive advantage in the region and in the growth markets in Asia (India and China).

¹ **A Digital Agenda for Europe**, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.

The objective of this Position Paper is to chart a course to maximize the social and economic potential of ICT, most notably the internet, a vital medium of economic and societal activity: for doing business, working, playing, communicating and expressing ourselves freely. Our intention is to spur innovation, economic growth and improvements in daily life for both citizens and businesses.

In 2008, the turnover of IT companies was EUR 2.67 billion, 22.1 per cent, higher than in 2007. The gross value added of the IT sector and related services was EUR 1.08 billion, compared to EUR 884.0 million in 2007. The share of total IT expenditure in GDP has increased from 2.1 per cent, in 2006 to 2.6 per cent, in 2008, below the average level of the EU-27 of 2.7 per cent.

Even in the crisis period, the effect of productivity growth is caused by the direct contribution of the ICT sector and investments. This is because of the high levels of dynamism and innovation inherent in the sector, and the enabling role the sector plays in changing how other sectors do business.

The development of high-speed networks today is having the same revolutionary impact as the development of electricity and transportation networks had a century ago. With the ongoing developments in consumer electronics, the lines between digital devices are fading away. Services are converging and moving from the physical into the digital world, universally accessible on any device, be it a smartphone, tablet, personal computer, digital radio or high-definition television.

ICT drives value creation and growth across the economy. This means that industry is increasingly in need of open and interoperable solutions to exploit ICT across all sectors.

ICT is not a priority itself but a tool and resource that can contribute to the realization of the priorities assumed by the Government, such as: state modernization, efficient administration, functional review of state institutions, at central and local level, human resource management, infrastructure, environment, energy efficiency.

ICT can significantly contribute to the useful absorption of funds from the EU and other international organizations by performing an inventory of the problems faced in managing, provided Romanian authorities are also willing:

- Access to relevant information about funds – open lines, terms, guides and instructions;
- Assessment and verification/ share information with beneficiaries;
- Projects monitoring/ payments/ implementation phases;
- Reporting/ effectiveness evaluation of the financing line.

This contribution of technology can be capitalized by equipping the ministries, management authorities and intermediary bodies with those applications for an efficient work and for reducing the effort and bureaucracy, or by outsourcing these services to private companies.

Smart use of technology and exploitation of information will help us to address the challenges facing society, to deliver policy objectives like supporting climate change, reducing energy consumption, improving transportation efficiency and mobility, empowering patients, an ageing society and ensuring the inclusion of persons with disabilities.

On the other hand, the ICT sector needs strong legal and regulatory incentives to continue investments in next generation, high-speed networks, capable of delivering fast and reliable services to consumers. In this context, the current legal uncertainty related to the regime of access on public domain for the development of electronic communications networks needs to be urgently addressed and a first step in this direction is the adoption of the long overdue Law on Telecoms Infrastructures.

Interoperability and Standards

Effective interoperability between ICT products and services to build a truly digital society

The internet is the best example of the power of technical **interoperability**. Its open architecture gave interoperable devices and applications to billions around the world. But to reap the full benefits of ICT deployment interoperability between devices, applications, data repositories, services and networks must be further enhanced.

Improving ICT standard-setting

Reflecting the rise and growing importance of ICT standards developed by certain global fora and consortia, one important aim is to allow their use in legislation and public procurement. Moreover, guidance on transparent ex-ante disclosure rules for **essential intellectual property rights** (IPR) and **licensing terms and conditions** in the context of standard setting, could contribute to lower royalty demands for the use of standards and thus to lower market entry costs.

Promoting better use of standards

Public authorities should make best use of the full range of **relevant standards** when procuring hardware, software and ICT services, for example by selecting standards which can be implemented by all interested suppliers, allowing for more competition and reduced risk of lock-in.

Enhancing interoperability through coordination

A key action to promote interoperability between public administrations will be the Commission's adoption of an ambitious **European Interoperability Strategy** and the **European interoperability Framework** to be drawn up under the ISA program (Interoperability Solutions for European Public Administrations).

Since not all pervasive technologies are based on standards the benefits of interoperability risk being lost in such areas. The Commission will examine the feasibility of **measures that could lead significant market players to license interoperability information** while at the same time promoting innovation and competition.

Trust and Security

Romanians will not embrace technology they do not trust - the digital age is neither "big brother" nor "cyber wild west".

Users must be safe and secure when they connect online. Just like in the physical world, cybercrime cannot be tolerated. Besides, some of the most innovative and advanced online services – such as eBanking or eHealth - would simply not exist if new technologies were not fully reliable. So far, the internet has proved remarkably secure, resilient and stable, but IT networks and end users' terminals remain vulnerable to a wide range of evolving threats: in recent years, spam emails have grown to the point of heavily congesting e-mail traffic on the internet – various estimates suggest between 80% to 98 % of all circulating emails - and they spread a wide range of virus and malicious software. There is a growing scourge of identity theft and online fraud. Attacks are becoming increasingly sophisticated (trojans, botnets etc.) and often motivated by financial purposes.

Fast and Ultra Fast Internet Access

We need very fast Internet for the economy to grow strongly and to create jobs and prosperity, and to ensure citizens can access the content and services they want.

The future economy will be a network-based knowledge economy with the internet at its centre. Europe needs widely available and competitively-priced fast and ultra fast internet access. The Europe 2020 Strategy has underlined the importance of broadband deployment to promote social inclusion and competitiveness in the EU. It restated the objective to bring basic broadband to all Europeans by 2013 and seeks to ensure that, by 2020, (i) all Europeans have access to much higher internet speeds of above 30 Mbps and (ii) 50% or more of European households subscribe to internet connections above 100 Mbps.

To reach these ambitious targets it is necessary to develop a comprehensive policy, based on a mix of technologies, focusing on two parallel goals: on the one hand, to guarantee universal broadband coverage (combining fixed and wireless) with internet speeds gradually increasing

up to 30 Mbps and above and over time to foster the deployment and take-up of next generation access networks (NGA) in a large part of the EU territory, allowing ultra fast internet connections above 100 Mbps.

Guarantee Universal Broadband Coverage with Increasing Speeds

Without strong public intervention there is a risk of a sub-optimal outcome, with fast broadband networks concentrated in a few high-density zones with significant entry costs and high prices. The spill-over benefits created by such networks for the economy and society justify public policies guaranteeing universal broadband coverage with increasing speeds.

For this purpose, it would be better to adopt some public policies which should, in particular, lower the costs of broadband deployment in the entire territory, ensuring proper planning and coordination and reducing administrative burdens. For instance, the competent authorities should ensure: that public and private civil engineering works systematically provide for broadband networks and in-building wiring, clearing of rights of way and mapping of available passive infrastructure suitable for cabling.

Wireless (terrestrial and satellite) broadband can play a key role to ensure coverage of all areas including remote and rural regions. The central problem to develop wireless broadband networks today is access to radio spectrum. Mobile internet users already experience congestion on networks because of inefficient use of radio spectrum.

1. ICT for Environment

ICT offer potential for a structural shift to less resource-intensive products and services, for energy savings in buildings and electricity networks, as well as for more efficient and less energy consuming intelligent transport systems.

The ICT sector can lead the way by reporting its own environmental performance by adopting a common measurement framework as a basis for setting targets to reduce energy use and greenhouse gas emissions of all processes involved in production, distribution, use and disposal of ICT products and delivery of ICT services.

Also, taking into account the very limited access to ICT equipment throughout the country and according to the Directive 2002/96/EC of The European Parliament and HG 448/2005 it is advisable that the used equipment to be refurbish and reused by those who cannot afford to buy new equipment.

Cooperation between the ICT industry, other sectors and public authorities is essential to accelerate development and wide-scale roll out of ICT-based solutions for smart grids and meters, near-zero energy buildings and intelligent transport systems.

The ICT sector is able to deliver modeling, analysis, monitoring and visualization tools to evaluate the energy performance and emissions of buildings, vehicles, companies, cities and regions.

2. Sustainable Healthcare through ICT

The deployment of eHealth technologies can improve the quality of care, reduce medical costs and foster independent living, including in remote places. An essential condition for success is that these technologies incorporate the right of individuals to have their personal health information safely stored within a healthcare system accessible online. There is an urgent need to enable global standardization and interoperability for technical, security and semantic aspects. The application of ICT will enable the introduction of mobility to healthcare, which will in turn facilitate the sharing of best practices and improve patient treatments. Funding of projects that support the introduction of real-time access to information in the area of healthcare will enable the provision of eHealth services to remote areas, both in country and cross-border.

3. eGovernment

The effective usage of ICT can significantly reduce costs and enhance the quality of public services. eGovernment services:

- Offer a cost-effective route to better service for every citizen and business and participatory open and transparent government.
- Can reduce costs and save time for public administrations, citizens and businesses.
- Can also help mitigate the risks of climate change, natural and manmade hazards by including the sharing of environmental data and environment related information.
- Support streamlined administrative processes.
- Facilitate information sharing and simplify interaction with public authorities.

4. Intelligent Transport Systems

Intelligent Transport Systems (ITS) make transport more efficient, faster, easier and reliable. The focus is on smart solutions to integrate passenger and freight flows across transport modes and provide sustainable solutions to infrastructure bottlenecks affecting roads, railways, sky, sea and waterways.

5. Foster ICT R&D&I

Romanian public authorities must join forces to align regulation, certification, procurement and standardization in favor of innovation. Public and private partnerships and stakeholder fora are needed that lay out joint technology roadmaps, from research to commercialization, for harnessing innovation to social need. Knowledge transfer activities should be managed effectively and supported by suitable financial instruments and publicly funded research should be widely disseminated through Open Access publication of scientific data and papers.

Romania must become the most attractive region for ICT Research and Innovation through a combination of increased funding at EU and national levels. Regulatory reforms must include improved Intellectual Property protection with regard to patents, copyright and the promotion of IPR in green technology.

6. Enhancing Digital Literacy, Skills and Inclusion

The digital era should be about empowerment and emancipation; background or skills should not be a barrier to accessing this potential. As more daily tasks are carried out online, from applying for a job to paying taxes or booking tickets, using the internet has become an integral part of daily life for many Romanians. Yet, a significant number of citizens has never used the internet.

Often they say they have no need or that it is too expensive. This group is largely made up of people aged 65 to 74 years old, people on low incomes, the unemployed and the less educated.

In many cases the take-up gap is due to lack of user skills such as digital and media literacy, not only for employability but also for learning, creating, participating and being confident and discerning in the use of digital media. Accessibility and usability are also problems for people with disabilities. Bridging this digital divide can help members of disadvantaged social groups to participate on a more equal footing in digital society (including services of direct interest to them such as eLearning, eGovernment, eHealth) and to tackle their disadvantage through increased employability. Digital competence is thus one of the eight key competences which are fundamental for individuals in a knowledge-based society. It is also the key for all to understand how to be safe online.

In addition, ICT cannot function effectively as a Romanian growth sector and as a motor of competitiveness and productivity gains across the Romanian economy without skilled practitioners. The EU economy is hampered by a shortage of ICT practitioner skills: Europe

could lack the skills to fill as many as 700.000 ICT jobs by 2015. Under these circumstances Romania could be a provider of expertise and high skilled for European market.

7. Promote e-Skills as Skills for the 21st Century

It is essential to educate our citizens to use ICT and digital media and particularly to attract youngsters to ICT education. The supply of ICT practitioner and e-business skills, i.e. the digital skills necessary for innovation and growth, needs to be increased and upgraded. It is necessary to improve the attractiveness of the ICT sector for professional use and in particular for the production and design of technology. All citizens should be made aware of the potential of ICT for all kind of professions. This calls for multi-stakeholder partnerships, increased learning, recognition about digital competences in formal education and training systems, as well as awareness raising and effective ICT training and certification outside formal education systems, including the use of online tools and digital media for re-skilling and continuing professional development.