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**EXPORT OF SERVICES: HYPE OF HIGH POTENTIAL?  
IMPLICATIONS FOR STRATEGY- MAKERS**

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**Direct or Indirect Export of ICT Services:  
Two Sides of the (Winning) Coin?  
The Seller's Perspective**

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## DIRECT OR INDIRECT EXPORT OF ICT SERVICES: TWO SIDES OF THE (WINNING) COIN? THE SELLER'S PERSPECTIVE

### What is ICT – products, Services or More?

Traditionally, the industrial viewpoint refers to the activities in ICT sub-sector as an example of high return-on-investment, high value-added, and a key to knowledge economy. On the other hand, most of the results of these activities are intangible and couldn't even be valued directly as their cost is quite undetermined. The only fair (and unfortunately quite immeasurable) way to assess them is through their direct or indirect impact on other assets and activities, not necessarily commercial. The rules of the new economy changed dramatically the simplified understanding of Information Technologies as "data collection, processing and disseminations". The new term used past years – "IT solutions", didn't bring too much clearness. Adding "C" for Communications even made the confusion bigger, as everything is digital now anyway. "Because communication – which in the end is what the digital technology and media are all about – is not just a sector of the economy. Communication *is* the economy." (Kevin Kelly, "New Rules for the New Economy", Penguin Books 1999)

Economists are puzzled how to situate ICT. How to "measure" and quantify, for example, the software? By number of bytes, lines of code, functions, objects, programs? Or the magic "man/months" – doing what: studying, practicing, prototyping or just thinking? Of course, there are still things to measure and touch somehow – computers, servers, storage, communication equipment, etc. – but the valuation of all that is mostly dependent on ***what you can do*** with this equipment rather than the cost of the components and resources invested.

Talking realistic about ICT projects – don't we trade "***promises***" and "beliefs"? All the pieces of the puzzle seem really quite intangible – what the customers want (or better say – "wish"), what the proper technology can handle (is there "proper"?), who can make it best and how to find him, how to finance (normally, this is a third party involved "innocently" in the game), what are the real constraints (not the marketing people desires only) ... There are many methodologies and methods attempting to put order in this chaos, but most of them treat ICT projects as engineering tasks and fail exactly in the most appreciated and desired feature of modern ICT solutions – creativity and innovation.

Current trading with ICT solution is not a buy-sell operation, but building long term relation, a kind of a "same boat" ***partnership***. The key factor therefore is called "trust". And to build this trust, there are many factors, also qualitative rather than quantitative - capacity, past experience & references, potential and resources, reliable management, good organization, economic background, etc. The origin of such a confidence could rely on various measurable parameters, but in fact the origin is typically subjective and by chance.

The paradox is that the majority of customers are still expecting the ICT solution (integrated, universal or proprietary, complex or some specialized system) as a product, best to be fixed-price project. On the other hand they rely on future evolutions, improvements, customizations – features typical for services rather than simple product support and maintenance. So, by nature the ICT products are also transformed into services (the other face of the licensing tricks).

To conclude – dealing (and exporting) the ICT services is ***intangible trade*** and has to be treated as intangible trade.

## **What are the Factors for International Competitiveness of the ICT Sub-Sector?**

The immaterial nature of ICT products and services determine the factors for competitive export based on customer confidence. We can group them in 3 levels: individual, company and industrial (national).

**Capability** of supplier:

- Skilled, certified professionals
- Excellent education (general, professional)
- Talents – Math, Computer Science & Informatics, Engineering
- Availability of resources, mobilization capacity

**Maturity** of organizations:

- Optimal business organization, management skills
- Focus on Quality Management
- Resources re-generation
- Company certifications – ISO, CMMI

**Industry profile**, national positioning:

- Business climate
- Organized industry – professional and branch organizations
- National strategies, economic priorities
- Education, R&D policy

Yet, **human-ware** is the most important and visible, so any competitiveness initiative should start and conclude with this focus. Certain specific skills are important for target niche or markets:

- Application domain know-how and specialization
- Theoretical (abstract and general) knowledge
- Language proficiency (technical English is not enough, German and French are advantage for international teaming)

Although technical skills and technologies mastered are the starting point, the training and qualification for management are essential. Keeping in mind that we are selling “promises” – the façade seen by customer decision makers are certainly not the developers ... Leadership is also equally important at company and national strategic level.

Of course, these general sets must be interpreted in **inventive** way. ICT competition is a game of “active agents” and if all apply the same or similar strategy they would lose in long run. Some initiatives “around” ICT services could be good opportunity for specific national branding. For example, the relatively limited capacity ICT sector in Macedonia became popular (not only in Hollywood) with the expanding 3D animation creative teams. A successful Bulgarian gaming company led to establishment of 2 others and creating a French gaming subsidiary in Sofia (another one already operational in Bucharest).

### **Competitive direct ICT export or support for other sectors competitiveness?**

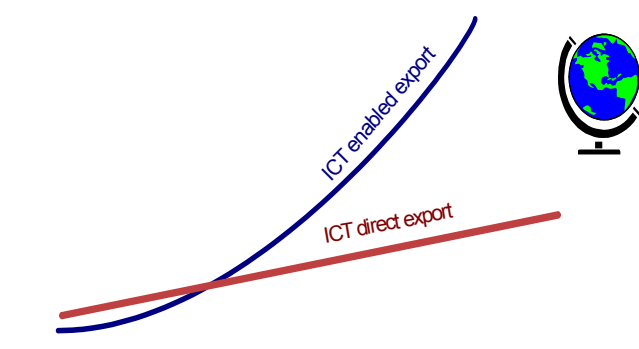
These somewhat contradictory priorities are in fact two sides of the same coin. Successful and exportable ICT achievements would be a booster when applied to other suitable sectors. Commonly, the export oriented IT firms are bearer of the latest technologies and techniques and naturally they pull ahead the local technological market. It is not only about the latest powerful computers and servers, here we talk about mobile devices (PDAs, mobile phones, or any hand-held; broad band; advanced communications; encryption; signal processing; etc). That was the way of introducing RFID tags in Bulgaria for various processes, and a recent pilot for cross-border transportation and logistics. The experience gained from outsourced software development projects in the field of ERP, CRM, finances

and insurance, manufacturing etc., gave chance to Bulgarian companies for developing quite competitive solutions for the local market, which in fact has 5-10 times lower buy-power if compared to the international one.

Shortly – well-developed ICT sector (meaning internationally competitive) will serve as an enabler and facilitator of other sectors, making them more competitive locally and internationally. This is essential for KIS (knowledge-intensive-sectors), but also brings new, unexplored opportunities – all around e-business and e-commerce, or even just web-space presence. Sectors benefiting already include: Tourism, Textile, Fashion, and Machinery.

If we assume the natural volume growth of ICT export as linear (stated like 30% per year for Bulgaria),

### Direct ICT export & Indirect volumes



then the successful implementation for other sectors competitive export hypothetically would have exponential impact. It is because when exporting ICT we repeat the success (at larger scale), while enabling the underline asset (product or service) is scalable and replicable.

On the other hand, the demand for information services coming from other, international oriented, sectors may result in specific ICT development, which at the end of the day could become again exportable.

This was the case with a solution provider to Bulgarian branch of an international insurance company, whose solution is currently sold in more than 5 countries.

The use of IT enabled other sectors with new opportunities - technology transfer networks, virtual and real clustering. This is the case with [www.ttnbg.org](http://www.ttnbg.org) – a network combining innovation capabilities in machine building, electrical and electronics industries, information technologies, food industry as well as several regional clusters. The desire to go international resulted in collaborative model with other global networks.

Here we should note that exporting ICT services usually is combined with import of ICT (advanced) equipment.

### **Strategic Initiatives Underway in Bulgaria to Raise Export Capability of the ICT Services Sub-Sector**

Although Bulgaria used to be known up to 1990 as “the Silicon Valley of Eastern Europe”, during the industrial reform it lost the leading position. Several Governments stated ICT as a priority sector, but no systematic program was implemented. The real push came in 2002 from the industry itself by proposing a unified “Strategy for ICT competitiveness”, well-founded priority list and respective action plan. The strategy was endorsed by the Government in 2004 and is under implementation as a real public-private partnership. Several initiatives:

- General business climate improvements: one of the most competitive locations in CEE (stable GDP growth of 5%, low taxes, favourable conditions, infrastructure – communications, corruption restriction).
- IT education – 4 new master programs in Informatics, IT and project management.
- Establishment of the regional excellence centre of European Software Institute ([www.esicenter.bg](http://www.esicenter.bg)) – software process improvement methodologies, competitive software industry through implementation of Capability Maturity Model Integration/CMMI (SEI, Carnegie Mellon, USA).

- National program “i-Bulgaria” – computer literacy, access to internet, computerized schools, universities broadband network.
- National innovation program.
- Creation of national ICT Cluster, supported practically by all ICT related NGOs.
- Systematic branding of ICT in international promotions.

The open dialogue between the industry and Government resulted in:

- Integrated investment promotion, SME stimulation and ICT promotion.
- Profiling the ICT sector and capabilities – “ICT audit” project.
- Creation of Governmental “Agency for IT and communications”.

ICT competitiveness strategy attracted all active **donor organizations** and provoked synchronization of their activities as well – UNDP, USAID, GTZ, EBRD, SIPPO, etc.

**Going regional** – last year BASSCOM, together with the associations of the other Balkan and East European countries, has initiated a **regional branding** campaign “Eastern Europe – high quality software hub”. The initiative include:

- Joint branding and promotion of the regional capacity (estimated at more than 50,000 qualified developers).
- Joint excellence program – CMMI training, awareness, ISO, quality management systems.
- Collaboration for large national/regional IT projects.
- Business partnership.

### **Meeting the Competitiveness Challenge – Some “Secrets”**

Be different! Moreover - be different in finding the difference!

Specialize in services – development is just to implement them – provide know-how solution and know your customer business model better than him!

Avoid proprietary systems (solutions) – use standard and collaborative solutions – make them talk to each other, link them ... even if the customer doesn’t want (or maybe just doesn’t see this opportunity?)

Get credibility by certification – people, organizations. No better promotion than the following one:

**The New Tech Outsourcing Leaders: Bulgaria, Latvia and Romania.  
March 28, 2005, Brainbench**

Brainbench results that challenge commonly held views about concentrations of the world’s technical talent pools:

- Eastern European nations such as Romania, Latvia, Bulgaria, and Belarus lead Western countries such as the U.K., Australia, Germany, and France in total certifications.
- As a percentage of total population, Latvia, Estonia, and Bulgaria lead the world (along with some extremely small nations such as San Marino and American Samoa.) Traditionally tech-savvy nations such as Singapore, Israel, and Sweden score farther down the list.

Source: <http://pdfserver.prweb.com/pdfdownload/222463/pr.pdf>

### **Is Success a Function of Enterprise Initiative, Sector Strategy, or a Combination of Both?**

Enterprise initiative is the key, but not enough. A good sector strategy not only supports the business in traditional sense, but also lever the success by building cross-sector bridges. Sector strategy doesn't automatically make companies more competitive.

However, there is still a danger that well promoted public strategy would attract new (international) players and aggressive investors and you may become a victim of your own success. Giants like IBM, HP, Siemens, and SAP are already profiting of ICT encouragement policy in east European countries (Romania, Bulgaria).

### **Recommended 'Best Practice' Initiatives at the Sector Level and Implications for the National Strategy-Maker**

Focus on process improvement rather than product improvement – apply the latest methodologies and optimize the development process – this will let your best people to develop **new** values, not fire-fighting for last-minute delivery ...

Cluster with motivated and competitive businesses – leverage the power and chance for success

Diversify, but stay focused – reuse the knowledge not the technology – development is only 30-35% of the investment

Networking – touch as many nets as you can! Encourage your partners to do it, or do it for them!