

THE BULGARIA ICT CLUSTER A CASE STUDY





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Introduction

Information Communication Technology (ICT) plays a critical role in the growth of many transitional and developing economies. These economies can be strengthened through cluster competitiveness initiatives. Unfortunately, these cluster-based initiatives seldom last beyond the end of a donor-funded project. The Bulgarian ICT Cluster, however, is still active, even after the USAID-funded Enterprise Growth and Investment Project (EGIP) closed down in early 2005. Over the past four years, Bulgarian ICT and IT sectors have had impressive annual growth of 9% and 17%, respectively. Although it's difficult to specify all the reasons why the sector has been successful, it is clear that the sector has been uniquely dynamic, supporting firms that work together in a flexible manner to pursue market opportunities.

The following case study examines the development of the Bulgarian ICT cluster and reports on its activities today, three years after graduating from direct donor-funded support, and how it had some impact on the success of the Bulgarian IT sector.

Current Bulgaria ICT Facts

- CIO magazine stated Bulgaria is one of the leaders in outsourcing in Eastern Europe
- More than 5,000 ICT companies
- Top 100 ICT companies have created 32,000+ jobs
- 9% y-o-y growth of ITC sector (2005)
- 17% y-o-y growth of IT sector (2008)

Bulgarian ITC market is projected to grow from 1,6 bnEur in 2004 to 2,3 bnEur in 2008 (CAGR 9%)

ITC market development in Bulgaria 2004-2008 mnEur 2.500 CAGR 9% 2.314 2.176 1.994 549 2.000 1.843 494 430 1.619 405 337 1.500 326 298 309 80 292 67 275 1.000 823 877 745 628 558 500 177 154 354 340 320 306 294 2004 2005 2.006 2007e 2008e ■ Fixed voice □ Fixed data □ Mobile □ CaTV □ Telco Equipment ■ IT Total ICT

	2004	2008	CAGR
Fixed Voice	340	294	-4%
Fixed Data	94	177	17%
Mobile	558	877	12%
CaTV	54	80	10%
Telecom	1.046	1.428	8%
Equipment	275	337	5%
IT	298	549	17%
пс	1.619	2.314	9%

Source: FITO: Arthur D. Little Analysis

Most data comes from Invest Bulgaria, Jan 2007, Bulgaria FactSheet, http://investbg.government.bg/upfs/27/ICT_factsheetBG_2008.pdf

Methodology

This brief was based work by BGI related to the lessons learned from USAID Economic Growth projects that support the ICT sector. BGI interviewed six "founders" of the ICT cluster and two cluster members regarding their perceptions of EGIP support and what aspects of the project were important to the development of a sustainable Bulgarian ICT cluster.

EGIP Project Overview – With Focus on the ICT Cluster

EGIP was implemented from April 2000 to April 2005; it was one of the first competitiveness programs in Eastern Europe. The purpose of EGIP was to improve public information and the interaction between government and society. Competitiveness was incorporated as a means of providing stakeholders with an economic focus for promoting dialogue and change. Cluster development was not part of the original design but by early 2000, the cluster process had gained creditability and was incorporated into the program.

The late addition of the cluster approach meant that limited resources were available for cluster support activities. Sector leadership and commitment determined which clusters received support from EGIP. Among the sectors considered were tourism, ICT, textiles, wine, food processing and transportation. The ICT sector was selected due to its growth potential and the energy that ICT sector leaders showed towards the cluster process. The ICT cluster was comprised of business executives from domestic and foreign firms based in Bulgaria. This is unique compared to other cluster projects, which often only work with the domestic ICT sector. They expressed their commitment by regularly participating in the cluster meetings and engaging with the facilitator to create an ICT strategy. Later they took part in a self-financed study tour trip to the US, supported by EGIP technical resources.

EGIP Project Interventions

EGIP demonstrated international best practices through the utilization of case studies, benchmarking Bulgaria against world leaders, facilitating some of the initial meetings with members, and providing technical assistance through ongoing collaboration and facilitation.

EGIP also provided technical support that helped guide the cluster's work on an IT strategy. The international experts were able to help the cluster avoid early failures by incorporating every sub-sector of ICT in the strategy. This resulted in the approval of the first national ICT strategy by the Council of Ministries¹.

Due to limited resources to implement cluster development, cluster members were required to make a professional and financial commitment that ensured the cluster members were dedicated to the process. Interviewees responded that even though EGIP's financial resources were limited, the project introduced competitiveness and

¹ Unfortunately, the government leadership changed the following year, and the strategy was never implemented.

cluster concepts that propelled the sector forward to become more competitive and meet the growing market demand for IT services.

Cluster members were able to develop a common identity and establish trust among businesses and individuals who otherwise competed in the same market. This critical result came from study tours undertaken by cluster members to Silicon Valley and Washington, D.C. where they were encouraged to think about their common issues. The study tours helped break preconceived notions about competition and presented new opportunities to the ICT leaders. These tours showed how ICT firms could cooperate and compete on IT projects, as well as highlighted the dynamic nature of firm-level relationships in the U.S. ICT industry. Participants saw how large IT firms are fairly flat organizations due to outsourcing development work to smaller firms. They also saw the pervasive role of IT in a society where a large portion of the population uses technology in their everyday lives, and thus technology is further integrated in the workplace. These new discoveries created a foundation of trust and helped to build relationships among the cluster leaders.

After the study tours, the ICT leaders were more dedicated to the cluster process and saw the benefits of working together to make the industry more competitive. The cluster recognized the need to work together with a common vision and with a single point of contact to the government and other stakeholders. The cluster started off with broad initiatives that led to an ICT country strategy delivered to the Bulgarian government. The consequent approval of the strategy by the government was a key success for the cluster at a critical point in its development. This formal accomplishment helped forge stronger relationships between firms and created trust to do more business with each another.

Results of the EGIP Project:

A Self-Sustainable ICT Cluster Promoting Change within the Region

The end of the EGIP project did not end the ICT cluster; in fact, under Bulgarian law, the cluster became a legal NGO. Cluster membership also changed from being representatives of ICT firms to ICT associations. Associations such as the Bulgarian Association of Software Companies (BASSCOM) and the Bulgarian Web Association (BWA) were encouraged to join the ICT cluster because of the government's acceptance of the ICT strategy and the launch of integrated strategic initiatives. Through these additions, members learned how different ICT sub-sectors interacted with each other. The wide scope of members reflected the complicated nature of the ICT cluster and enabled stakeholders from various IT, software development, and infrastructure firms to work together. Even the incumbent telecom firm saw value in being part of the cluster and joined.

The cluster's founders, CEOs of the original member firms, took their organizational skills to IT associations within Bulgaria. Throughout this process, while the members of the ICT cluster switched from firms to institutions, the individual leadership of the cluster did not change - a critical factor in the long-term success of a cluster. The ICT cluster is now promoting the cluster concept in the region by increasing the capacity of ICT professionals, attracting investment, and promoting ICT certification.

Expanding the cluster concept to Eastern Europe is critical for Bulgaria. Although the Bulgarian IT service industry has grown by 17% annually, its education sector has not been willing to change to meet the necessary skills. (The ICT cluster has tried over several years to engage with the publicly run education sector, but with little success) Demographic constraints are also hurting the ICT sector as the industry needs an IT workforce to supply its growing market demand; but Bulgaria has a fertility rate of just over 1 person per family, with many young professionals moving to Western Europe. To counter this, the cluster hopes to create links to other parts of Eastern Europe where Bulgarian IT firms can solidify business relationships and outsource IT development work. It is envisioned that the cluster methodology will help build trust among firms in the region to meet the growing market demand for IT services. One critical element of this goal is getting firms across Eastern Europe to employ basic IT business processes and systems promoted by the European Software Institute called the IT Mark.

Economic Impacts of the Bulgarian ICT Cluster

The Assessment of the Bulgarian Enterprise Growth and Investment Project (EGIP), 2005 stated that "there was very little tangible data about the revenues, employment, and exports of firms in the sector" that was directly affected by the cluster process. However, during the BGI interviews two years later it became apparent that the cluster process helped to attract significant foreign investment into Bulgaria. These new investments came in two forms – new investments by international ICT firms expanding their own operations into Bulgaria, and from strategic investments into existing Bulgarian ICT firms. For example, after a visit to Bulgaria where a Finnish firm witnessed an integrated industry that was working together and had a voice within the government, the firm made a strategic investment in a Bulgarian ICT firm. Another example is that of USbased Hewlett Packard, which increased their investment into its Bulgarian operation based on similar observations, leading to the hiring of 1,000 more engineers. During the investment decision process in both of these examples, the ICT cluster took on an active role to facilitate investment. The cluster, in turn, worked with the Invest Bulgaria Agency and the Bulgarian Investment Information Network to facilitate meetings with IT firms and put together events that showed an industry that worked together. The risk for investors is significantly reduced by the knowledge that the IT sector is flexible and capable of meeting the demands for IT services due, in part, to their voice in government.

During the investment decision-making process, several cluster firms also highlighted that more business was created due to a trusting relationship between the firms. As firms were awarded contracts, many of them outsourced their work to other Bulgarian firms that they trusted instead of adding to their own payroll.

Lesson Learned:

Would there be a Bulgarian ICT cluster (or something similar) if there had been no EGIP? According to the cluster members, the answer would be "NO!" "I seriously doubt anything would have happened without the MSI project," said one cluster member. Given this, what are some lessons learned from Bulgaria that could be applied to other economic growth projects?

- Strong industry leadership is the easiest way for the sector to self-select:
 Out of the six sectors, ICT stood out because of its leadership. The leaders
 showed commitment and energy; the members saw value in their independent
 firms working together to expand Bulgaria's ICT sector. Even with limited
 resources, the cluster process encouraged members to see the benefits of
 working together to increase their competitiveness. The cluster put "skin into the
 game," which resulted in members becoming more invested in the process.
- A strong local facilitator is very important to drive the process: The facilitator was both a motivator who encouraged the cluster throughout the process, and an organizer who managed the process to ensure that it moved forward. For EGIP, the facilitator helped "facilitate very good discussions between leaders" and "motivate the leaders by finding common interests." More specifically, a good facilitator responds to the cluster needs to help it move forward. Sometimes this means that the facilitator mediates conflict to ensure all parties are heard, brings in outside resources and tools to help the cluster in the learning process and often works behind the scenes to get everyone in agreement. For sustainability, a good facilitator should not lead the process but support the cluster leaders develop their strategies and actions.
- Have events that break down personal barriers to build trust: The study tour
 trips were important occasions for the founders to communicate more freely to
 find common opportunities and to motivate them to work together. Currently, the
 ICT cluster has a weekly event called ICT Tuesday, which is an opportunity to
 discuss interesting topics for the ICT industry and to find common interests.
- Look for opportunities to work together: It was interesting to note that the
 clusters felt a little uneasy on not following "the book" on cluster development
 because they were not using Professor Michael Porter's cluster methodology.
 Bulgaria's ICT cluster initiative was driven by the approval from the government
 for the national ICT strategy and showed the clusters what can happen if they
 work together. The fact they were able to keep the cluster going after the USAID
 funds ceased is testament to their ability to focus on common opportunities to
 make their sector more competitive.

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