



# Showcasing Commitment to Moldova's IT Sector



USAID CEED II project

*Members of the Polytechnic College's robotics club (also known as a "roboclub") bond over their shared interest in robotics and IT career aspirations, in Chisinau, Moldova, October 2014.*

## Why the Information Technology (IT) Sector?

The USAID Moldova CEED (2005-2010) and CEED II (2010-2015) programs have helped grow and expand the competitiveness and efficiency of key industries in Moldova leading to increased sales and investment. The programs have assisted the following sectors: information technology; wine; fashion, textiles, apparel, and accessories; tourism; and home furnishings.

The IT sector has been seen as a catalyst for economic development in Moldova with opportunity for quick growth, high earning potential, a swift path from education to the workforce, and leverage

to create positive changes in Moldovan exports. But assistance was needed. The sector suffered from poor infrastructure, an inexperienced labor force, and was in need of improvements to management practices, product development, hardware, and linkages to international markets keep pace with global trends. The sector's potential to positively affect Moldova's domestic and international economic health moved IT to the top of competitiveness priorities for the country in 2005. Its relevancy has been sustained based on positive impacts to the Moldovan economy as a result of a prospering IT sector.

### The Current State of the Sector

Looking back on 10 years of support to Moldova's IT sector, what can be shown for the responsive and multifaceted approach to increasing sector competitiveness? Results can be measured in terms of increased exports, strengthened inter-sector collaboration, and new innovations.

From 2003 to 2008, ICT exports jumped from \$24 million to **\$114 million.**



IT services alone increased from \$1.2 million to **\$26.3 million** during that timeframe.

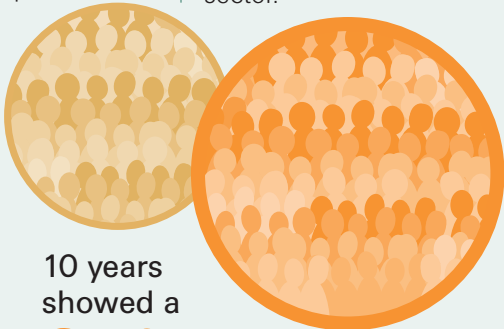
As of 2013, exports had grown 10 fold to reach nearly **\$240 million.**

As of 2012, the ICT industry had grown to **\$600 million.**



In 2005, the ICT sector employed **16,500** people.

As of 2015, more than **22,500** Moldovans are employed in the ICT sector.



10 years showed a **35%** increase.

### Responding to an Evolving Sector

The best approach for enhanced IT sector competitiveness was ensuring activities were consistently responsive to the market and how it was progressing. As needs of the market and sector players changed, the approach to assistance developed simultaneously. A responsive, multifaceted approach was used from 2005 through 2015 with corresponding sector advancement and programmatic benchmarks.

- **Scaling the existing players.** Starting in 2005, the Moldova CEED project aimed to mature existing IT companies that had withstood separation from the former Soviet Union and ensure sustainability and viability for domestic and international growth. The launching pad for this assistance focused on product and service quality improvement and increased domestic export activity.
- **Staffing up a growing sector.** Low human capacity in the sector was recognized as a detriment to long-term growth as IT companies matured and grew rapidly. The need for a more skilled labor force became evident and the top priority starting in 2008. Improved human capacity remains a key focus for the sector as of 2015, spanning both CEED and CEED II programs.
- **Thinking outside the box.** To spur Moldova's entrepreneurial ecosystem, engage youth, and compete with global product innovations in IT, CEED II launched start-up weekends and training in 2012.
- **Ramping up and diversifying promotion.** With an expanding IT sector, promotion was needed to not only continue building the labor force but to showcase—domestically and abroad—what Moldova can contribute to the global ICT community. The CEED II program carried out promotional campaigns using evolving and innovative media from 2008 through 2015.

Beyond quality improvement and human capacity building, the CEED and CEED II programs helped further develop the sector by positioning Moldova as an IT destination; achieving a shared vision and better environment for the ICT industry, and building a stronger start-up community and idea-sharing culture.

## Key Activities

### Scaling and increasing global competitiveness through strengthened management tools.

Starting in 2007, the CEED program assisted six software companies to enhance their software development practices by introducing them to internationally recognized model Capability Maturity Model Integration (CMMI), and IT Mark, which aims to certify the quality and maturity of the processes of small- and medium-sized technology companies. As a result of improved efficiency, "We expanded our company almost two times," Macari of F-Line Technologies said. "The volume of our contracts grew." F-Line Technologies and Alfa Soft have pursued IT Mark Premium, the next level of certification. F-Line Technologies received IT Mark Premium certification in June 2010.

### Educating through Cisco IT Essential Courses.

Since 2008, more than 3,000 students, ages 14 to 19, have successfully completed the Cisco IT Essential Courses (ITE) and learned software and hardware basics, including how to set up an Internet network. Started as a pilot project in a small number of educational institutions in 2012, as a result of the successful cooperation between CEED II and the Ministry of Education, ITE became an optional course for the entire educational system. More than 170 teachers were trained and 125 institutions started offering ITE with CEED II support. The partners have taken over this initiative and its use is increasing.

**Spreading the news through IT career promotion campaigns.** Streaming live, interactive presentations in more than 70 higher education institutions and lyceums from Chisinau to the suburbs since 2010, ATIC, the Association of IT Specialists, the Ministry of Education, and the Prime Minister's Adviser for Youth and IT have worked to persuade more than 5,700 future graduates to consider a career in IT. The associated promotional media campaign reached more than 2.5 million people across Moldova, resulting in increased numbers of applications for IT studies at the university level.

### Driving innovation through start-up weekends.

Bringing together software developers, graphic designers, investors and entrepreneurs to develop commercially viable and scalable applications proved successful in strengthening Moldova's IT

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The national informatics curriculum for lower- and upper-secondary education was updated to meet industry needs with more than **57 schools** piloting the curriculum as of September 2014.



Moldova's six start-up weekends yielded more than **400** participants and **FOUR** successful start-ups.

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IT Orientation Events have reached more than **3,100** students, and **17** IT companies connected with young students to demystify stereotypes of what a career in the IT sector looked like from 2010 to 2015.



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sector and entrepreneurial ecosystem. The CEED II project encouraged the creation of Web and mobile applications to form credible Moldovan businesses by facilitating six start-up weekends from 2012 through project close. The weekends yielded more than 400 participants and four successful start-ups. Businesses such as [www.feedmehoney.ru](http://www.feedmehoney.ru), Vintage, and Ticksell are a direct result of start-up weekend initiatives.

### Building engineering skills through robotics.

In 2014, Moldova launched its first few robotics clubs. With more than 200 participants by May 2015, active clubs in six schools, and more than 700 kids attending demo lessons, robotics have incentivized students to see the breadth of possible IT professions, learn to work together as teams, and foster innovation. In 2015, CEED II and other partners organized the First Lego League (FLL) science and technology competition. Ten local teams joined. The Moldovan Champion (the RoboLords from Polytechnic College of Chisinau) went to the international FLL competition in Estonia and won first place for Robot Design.

## Sustaining Gains and Expanding the IT Sector

The information and communication technology (ICT) sector in Moldova has been one of the

most productive and rapidly growing industries during the past 10 years. Further support of the IT sector is needed to sustain gains and continue bridging the skills gap. With the founding of the IT Center of Excellence (ITCE), the IT community will leverage new resources that put students on the cutting edge of new developments in the industry. Engaging the private sector in IT education will continue to be a primary focus. Further developing existing private sector partnerships and creating new relationships with global corporations in educational programs, curriculum development, internships, soft-skills development, and mentorship will institutionalize private partner commitments to strengthening the sector. Expanding Lego Robotics Clubs nationally will inspire youth for IT and engineering careers and improve skills of entry-level technicians. Reinforcing the start-up ecosystem, while developing products using new approaches, supporting local accelerators, and creating a business angel network, will encourage entrepreneurship in IT and lead to internationalization of local start-ups. CEED and CEED II activities have shown that the more Moldova invests in its IT sector, the more it provides youth with increased employment opportunities, supports the local entrepreneurial ecosystem, and creates export opportunities for the country. Growth of the IT sector will continue to mean growth for the Moldovan economy.

