

# EDUCATION & BUSINESS ARMENIA







# **EDUCATION AND BUSINESS STUDY**

## Armenia

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# List of acronyms

CCI Chamber of Commerce and Industry

MoES Ministry of Education and Science

MoLSI FMinistry of Labour and Social Issues

NCVD National Council for Vocational Education and Training Development

NSS National Statistical Service
NTF National Training Fund

RUEA Republican Union of Employers of Armenia

SDP Sustainable Development Programme

SESA State Employment Service Agency

SMEDNC SME Development National Centre

Tacis Technical Assistance to CIS
UBA Union of Builders of Armenia

YSUAC Yerevan State University of Architecture and Construction

#### **Foreword**

Many countries worldwide have reinforced their education and training systems' capacity to respond to the pressures of globalisation and the challenges of the knowledge society. Closer cooperation between business and education is one of the tools for providing learners with new skills and competences for work. However, the available knowledge on the current forms and modes of cooperation between the education and economic sectors, and the roles and responsibilities of the different stakeholders involved, is limited and fragmented.

The European Commission's Directorate-General for Education and Culture has entrusted the ETF with carrying out a study on education and business cooperation in the EU neighbouring countries and territories involved in the enlargement process as part of the Instrument for Pre-Accession Assistance, the European Neighbourhood Partnership Instrument, or in Central Asia, in order to:

- draw up an inventory of current cooperation between education and business;
- identify to what extent EU approaches and policies are relevant to the EU neighbouring countries;
- provide tailored information and recommendations to national policy makers and donors for future programming initiatives and capacity-building measures.

For the purposes of this study, the term 'education' includes VET, post-secondary non-tertiary education and tertiary education, including public and private institutions. The term 'business' covers any entity with economic activity, regardless of its legal status. This can include multinationals, public and private companies and SMEs, micro-businesses and actors in the informal economy, and social partners (employers' and employees' organisations, civil society organisations and their training bodies), as well as national, regional and local authorities. While the focus of this study is on identifying and reflecting on policy or strategically driven approaches to cooperation, the study considers education and business cooperation in a very broad sense, meaning any kind of relevant policy provision and/or formalised or non-formalised interaction between an education/training provider and a business organisation.

The present paper is the country-specific contribution for Armenia. It has been elaborated as a joint effort and follows a study design consisting of desk research, data exchange with partner institutions and a validation workshop conducted in July 2010.

During this intensive consultation process, facilitated by the ETF, the main national stakeholders (representatives from relevant ministries, social partners, the education system, businesses and civil society) discussed the state of play and provided recommendations for its improvement. The ETF produced this final report based on the key discussion points and messages.

This document will serve as an input for a regional ETF study, relevant for the context of the Eastern Partnership and for a cross-country ETF study of education and business cooperation (reflecting on the findings of all countries with which the ETF cooperates), both due to be published in spring 2011.

The ETF is grateful for the opinions shared and insights provided by participants during the rich discussions in all meetings.

# **Executive summary**

Since the mid-1990s the Armenian government has been one of the most advanced reformists in the Caucasus region, and this led to rapid economic development until the end of 2008. In 2009 the worldwide economic crisis slowed down the process of economic growth in Armenia and highlighted the need to increase the competitiveness of the country in order to attract investors, expand development to new sectors and increase exports.

The importance of cooperation between business and education has been increasing, and such cooperation is now recognised as a vital tool for bringing human resources development in line with the requirements of the country's society and economy.

Cooperation between universities and business is improving: foreign investors, through the National Competitiveness Foundation of Armenia, will contribute to the establishment of innovative technological parks in cooperation with companies. Social partners' contributions have been identified in many policy documents guiding the future perspective of VET. There are some examples of best practice which can be used as models for further replication. Very often these examples are based on the personal individual initiatives of university/college rectors/directors, or upon their geographical location: it is more difficult to establish cooperation in remote rural areas were there is no economic development. Sometimes the initiatives are based on the contributions of donors; these are used to upgrade staff, equipment and curricula and thus make education a more attractive prospect for businesses.

While the authorities seem to be well aware of donor support and coordination, however, they do not appear to be so well informed on, and do not pay enough attention to, cooperation between business and education. Thus the existing experiences remain isolated cases of best practice, mainly originating from individual ideas and goodwill, whose methodology and results do not contribute to the improvement of the system.

It is necessary to disseminate the approaches and results of any successful cooperation initiatives, and for all stakeholders to learn from the good practice therein. The Ministry of Education and Science in particular should create opportunities for the circulation of information regarding, and the promotion and mainstreaming of, these experiences.

## A. Context / Policy

After the fall of the Soviet Union, the former Soviet countries had to face difficult challenges including a general lack of trust between an emerging private sector focused on short-term economic survival and a declining public sector that was still aimed at controlling and centralising production processes and defining the needs for a qualified labour force.

The transition to a market economy has completely changed this context, particularly in relation to human resources development policies and implementation. The restructuring of the economy and the closing down of large state enterprises has led to an alarming level of unemployment, with serious implications in terms of poverty and social exclusion. With the removal of the large state enterprises, vocational and technical schools saw their main clients disappearing from the market, and they had to realign themselves – their teachers, curricula and pedagogical approach – to the new emerging needs of the labour market.

Several governments have tried to improve the situation with ambitious and often donor-driven initiatives, and social dialogue and real participation of education in economic development has emerged mainly through the implementation of pilot projects. In some cases these projects have been very successful in creating positive results on a short-term basis, but only rarely have they contributed to reform at the system level. This is due in part to lack of financial resources and to the fact that, in spite of the elaboration and adoption of many strategic policy documents suggesting very ambitious systemic reform, the lack of funds prevents the experiences gained through pilot projects from being disseminated more widely at the system level.

The economic hardship that Armenia faced during the 1990s did not allow for much cooperation between business and education: the private sector had to redevelop after the collapse of the Soviet Union and the conflict in the region, while education had to improve its quality and participation in spite of scarce financial resources. It was a difficult time, but economic growth since 2000 has promoted a slow change in the prevailing mentality and more attention has been given to the links between education and business.

VET inherited from the Soviet period had the image of being a less attractive option when compared to general secondary education and higher education. The perception of VET was that it was a 'second chance' education for less privileged pupils that did not lead to university or to attractive jobs in the labour market. In theory there is access between preliminary and middle VET to tertiary education, but in practice, even if middle VET required more years of study than secondary general education, without tutoring classes it would be difficult to pass the entrance examination to tertiary education, and pupils from low-income families would not be able to afford it.

The first initiative promoting cooperation between business and education in Armenia was created in 2004 with the EU Tacis assistance project and with the establishment of a task force and local development committees aimed at collecting information on labour market skills needs. Both the task force and the committees included representatives of social partners' institutions.

The relationship between education on one side and the economy, business and the labour market on the other has since begun to be a matter of debate in Armenia and has received constant attention mainly from employers, who underline in all occasions the need for a skilled labour force in order to make companies competitive in the internal and external market. They complain about the quality of graduates available in the labour market both from VET and from universities, stating that the knowledge these applicants have is too academic and outdated and is not useful to modern companies, which have to survive in a global market.

The main national policies and strategies that make reference to social dialogue through the establishment of closer links between education and business are:

- Concept on the Development of Preliminary Professional (Craftsmanship) and Middle Professional Education, with Action Plan for 2009–11, which identifies the main objectives of VET development, strategic approaches, priorities and major policy directions.
- Concept of Lifelong Learning in Armenia, adopted in October 2009, which defines the principles and concepts of lifelong learning, the main problems in the field and possible solutions.
- Concept on Social Partnership in the Field of Preliminary Professional (Craftsmanship) and Middle Professional Education, adopted in May 2009. Four levels of social partnership – national, regional, sectoral and institutional – are foreseen, with clearly defined responsibilities.
- Memorandum of Understanding on cooperation in the field of VET signed between the Ministry
  of Education and Science (MoES), Republican Union of Employers of Armenia (RUEA) and
  Chamber of Commerce and Industry (CCI) in September 2009. This memorandum defines the
  parameters for employers' and unions' participation in VET provision and VET development in
  Armenia.

Very rarely, the above documents make reference to positive experiences in cooperation between education and business and present proposals on how to build on the results of these initiatives.

The specific priorities of VET reforms in Armenia identified in the Concept on the Development of Preliminary Professional (Craftsmanship) and Middle Professional Education are:

- Optimise VET financing and improve VET governance;
- Introduce competency-based VET standards;
- Increase the effectiveness of the VET system and improve educational outcomes;
- Modernise quality monitoring mechanisms;
- Strengthen and institutionalise social partnership.

The priorities identified in the concept have been the basis for the design of EU and other donors' support budgets. Some noticeable progress has been made in all the above areas, in particular in the field of participation of social partners, who have become active partners in the reform of VET.

The dialogue is still in its earliest stages, however, and social partners complain that the process is still too centralised in the hands of the public institutions; during a seminar organised by the ETF in July 2010, the RUEA proposed a rotation in the chairmanship of the National VET Council, in order to ensure shared participation between the public and private sectors.

This is a clear demonstration that it takes time to build dialogue and trust, especially in a country such as Armenia, where the public sector administration is not very popular among representatives of civil society.

## B. Structures / Methodologies / Approaches

The main governance, support and implementation structures dealing with education and business cooperation are as follows:

- The **government**, represented by the MoES, the Ministry of Labour and Social Issues (MoLSI), the Ministry of Economy, and the line ministries that have educational institutions under their supervision, such as the Ministry of Agriculture, the Ministry of Health, the Ministry of Energy and Natural Resources, and the Ministry of Culture, at the policy development and implementation level.
- Multipartite bodies such as:
  - the **National Council for Vocational Education and Training Development** (NCVD), which is a tripartite consultative body and includes an equal number (seven each) of representatives from the three parties (public, employers, trade unions) and ensures the achievement of social partnership in the VET sector at the national level. The NCVD meets on a regular basis.
  - the National Competitiveness Foundation of Armenia, which is an independent entity founded through a partnership between the government of Armenia and a group of leading representatives of the private sector from the United States, Russia, the European Union and the Middle East. A key priority for the foundation is the development of a strong education system.
- State agencies/institutes which are intermediate structures linking the business and education spheres, such as the State Employment Service Agency (SESA) and its regional (*Marz*) and local employment centres; the Youth Professional Orientation Centre; the National Institute of Labour and Social Research; the National Centre for VET Development; and the National Centres of Professional Education Quality Assurance.
- Social partners, namely the RUEA, the CCI and its regional branches, and sector-based unions
  of employers/entrepreneurs such as the Union of Builders of Armenia (UBA), as well as individual
  companies.
- 13 permanent sectoral committees with the objective of reviewing and endorsing draft educational standards.
- The **management boards** of around 120 vocational education institutions. These boards were established in 2008 and became operational in January 2009. Two to three employers have been invited to join each of the boards, and the majority of board chairpersons have been selected from among employers.
- Organisations providing education and training such as state and private educational institutions (universities, colleges) and commercial and non-commercial training providers.
- In August 2006, in accordance with new Law on Employment of the Population and Social Protection in the Case of Unemployment, conciliation committees were established at the regional and national levels. The main task of the conciliation committees is to ensure participation of social partners in the processes of development and implementation of state programmes on employment. The National Conciliation Committee discusses the draft national employment programmes and submits its conclusion to the MoLSI, and monitors the progress of the programmes. There are 51 conciliation committees, which provide operational guidance to local employment offices.
- The Confederation of Trade Unions was established in 1992 and has 24 member trade unions.
   Overall the trade unions have 300 000 members, and each sectoral trade union has its own

constitution. The trade unions have good cooperation with the state and were actively involved in the development of the new Labour Code.

- Though seen by government agencies and employers as insufficiently powerful and rather passive in human resource development issues, the trade unions do have an established infrastructure at the national, regional and local levels, and still enjoy high individual membership.
- Trade unions are well organised compared to employers but should modernise and rethink their role in defending the rights of employees by being more active in the area of qualifications, training and skills development. The Confederation of Trade Unions has a training and research centre which conducted research on youth employment in late 2006.

**International organisations** such as the UNDP, EU, ETF, ILO, USAID, DVV International and the World Bank contribute to the establishment of education–business links through a range of different programmes and projects.

Recently, representatives of education and business have shown a positive attitude towards cooperation; mutual awareness of the idea and the desire to promote it is evident in both parties. Nevertheless, a certain degree of mistrust remains between the two sides, and this limits the implementation of large-scale projects. Employers have become better informed about the existing situation at educational institutions and the difficulties these institutions face in terms of financial resources, equipment, didactical material etc. Thanks to a certain level of flexibility, business is now more inclined towards cooperation with the education sector, though the latter is somewhat conservative and resistant to change.

**Involvement of employers in the process of development of state educational standards:** in the course of 2008–09, working groups were established with the participation of employers and their representatives. These groups developed 61 state educational standards for VET based on labour market requirements. In 2010, 19 other standards were under development by similar working groups, whose members are officially nominated by the RUEA and CCI, at the request of the MoES.

# Cooperation between the Yerevan State University of Architecture and Construction (YSUAC) and the Union of Builders of Armenia (UBA)

- UBA specialists are involved in the Scientific Council of YSUAC.
- The rector of the YSUAC is a member of the UBA board.
- UBA specialists often deliver lectures and presentations on various topics at the YSUAC.
- UBA representatives organise counselling for students, young academics and specialists, supervise projects and theses, support research activities and publish articles by YSUAC graduates in the UBA journal.
- The UBA helps organise student internships (200–300 students per year), providing construction sites and materials and ensuring the availability of appropriate specialists.
- The UBA pays for the tuition of four to five talented students per year.

# Example of education and business cooperation at Yeghegnadzor State College

- Close collaboration, running throughout the year, has been established between the college and employers based in the region.
- The qualifications needed by the labour market and the number of required specialists are clarified through research with employers. Data on the employment of college graduates are regularly updated.
- In the past five years, around 74% of college graduates have managed to find jobs, but only a limited number could find a job relevant to their qualification.
- Contracts have been signed with employers to help graduates to find jobs.
- Employers participate in final examinations and are given the opportunity to choose the best graduates.

**Involvement of employers in the final attestation committees of schools/colleges:** in both universities and VET colleges, the final attestation commissions (covering the overall assessment of graduates through diploma projects or final exams) are chaired by employers representing the corresponding sectors of the economy. In addition to the assessment, their duties include the development of recommendations for the improvement of the training process. Their participation in the final examinations encourages better performance from graduates, who see the representative of the company as a potential future employer.

**Direct links between schools/colleges and companies:** many educational institutions have established direct long-term cooperation with individual companies, with a view to creating job opportunities for their graduates. The companies support the educational institutions in the improvement of their facilities (via provision of training equipment or direct financial assistance), the organisation of practical training (internship), etc. Some good examples of such cooperation are described in Annex.

**Short-term training courses provided by schools/colleges/training centres:** this includes mostly implementation of short-term training of the unemployed organised by SESA, and training provided at the direct request of companies, which may include retraining of current staff or training of people to be employed.

The example of transnational companies such as **Coca-Cola CJS Company** (in 2008) and **Orange Armenia** (in 2009) can be mentioned in this respect. These companies applied to Yerevan State Engineering College and ordered six-week trainings for 15 and 21 electricians respectively. The companies directly participated in the design of the training courses and in the final exams of the trainees, who were subsequently employed.

**Student internships:** depending on the course and the school/college in question, an average of 6–10 weeks of internships per academic year is foreseen by the standards and the curricula. Internships are implemented in appropriate organisations (including private companies), and supervision of the students' activities is carried out by a teacher of the school/college in cooperation with a representative of the company who is appointed as a tutor. There are problems in the organisation of student internships in organisations, however; these are:

- The number of students in almost all fields is much higher than what the companies can offer for the internships;
- The students are rather poorly prepared to perform any practical work; consequently, companies do not usually allow them to participate in production, and they mainly play the role of observers:
- The employers usually do not consider the interns as future employees.

However, the following good practice can be mentioned:

**Entrepreneurship learning: in 2008** RUEA organised "Business Days" for 25 General Schools, Colleges and Universities. Around 1.100 students and faculty members participated in this event devoted to such topics as LM issues, requirements of employers, professional orientation, developing the sectors of economy, etc.

Given that VET is not considered attractive but it just the second chance education for the less privileged pupils, a real service for vocational education and guidance does not exist in Armenia. This is also due to the fact that VET enrolment quota is just considered as administrative function of the MoES, which collect information from the other ministries and local government without any analysis on what the labour market would require.

SESA provides guidance to the unemployed within the range of the services offered by local employment offices.

Career centres have been established at all universities, but these are not effective because of the following reasons:

- Insufficient development of the economy the number of job vacancies is very limited;
- There is little information available about labour market development and about existing vacancies;
- Neither employers nor graduates fully trust the career centres.

Some positive actions have been undertaken, particularly by employers, namely:

**Information exchange:** in order to ensure mutual awareness, different means of information exchange and consultation are utilised: official papers, journals, guides, professional orientation brochures and information booklets. Television, internet and external advertisement are among the tools most commonly used, and give up-to-date information on the labour market. TV programmes and debates with the participation of employers and representatives of the education sector have become more common. The annually organised education—labour market exhibitions and job fairs play a significant role in strengthening the links between education and businesses.

Examples of recently printed materials include:

- The Vocational Education journal regularly published by the RUEA.
- The Advice on how to choose the right education and progress in the labour market brochure, published by the RUEA and the ILO (2008). This brochure is a guide for students, youth and lecturers.
- The Ways of employer involvement in vocational education and training manual, published by the British Council and MoES (2010). The main aim of this manual is to present the principles and possible ways for employers to become involved in the VET sector, and the benefits that both parties can reap from the process. The manual is intended for the principals of colleges and craftsmanship schools, officers responsible for the establishment of ties with employers, and representatives of a wider circle of employers and stakeholders.

Reference should also be made to the **education/training provided by businesses** for their own staff and/or for those of other companies. In recent years, training centres have been established at a number of large enterprises that ensure continuous training for their employees. These include:

- The **UBA training centre**, which provides six-month trainings for 10 people (20 people per year) for construction companies and issues a certificate;
- The UBA organises lectures on various topics (on a voluntary basis) at the YSUAC and its Middle Vocational College and Yerevan State Engineering College;
- The **Beeline telecom company training centre** provides trainings for its own staff but also for those of other companies, particularly from Georgia. The duration of these trainings is between six

hours and two weeks. On average, 2 000 specialists are trained and receive certificates each year.

From 2008 to June 2010, 250 employers were trained by the RUEA in cooperation with the SME Development National Centre (SMEDNC),<sup>1</sup> World Vision and the ILO on topics such as 'Start your business', 'Business for beginners', 'Labour legislation' and 'Labour protection'.

## C. Challenges

The evidence provided in the previous chapter reveals that, in recent years positive tendencies have been registered both in VET sector reforms and in the strengthening of ties between education and the business community. The process is still ongoing, however, and the following constraints may delay its progress and effectiveness:

- The legal framework, which is overly rigid and features unfavourable tax and customs policies;
- Existing policy documents aimed at promoting education and business cooperation express
  positive intentions, but there is no action plan with concrete timing and resource allocation, and no
  mechanism are in place to monitor progress;
- Companies have other priorities;
- Mistrust still exists between schools/colleges and companies, originating from the legacy of past mistrust between the public and private sectors;
- The reputation of teachers and school principals the professional qualifications of teachers and managers of educational institutions are considered outdated, and low wages are considered to have a negative impact on these individuals' commitment and motivation to work;
- Weakness of the career centres at vocational institutions, which function poorly and do not contribute to the improvement of the dialogue between education and business;
- Poor quality of existing labour market analyses, which are not accurate social partners complain about the shortage of relevant research works;
- VET is not organised in consultation with employers but is centralised and mainly supply-driven.

One constraint to the promotion of cooperation between business and education is linked to the large proportion of micro-enterprises in Armenia and the slow development of the SME sector. The culture of entrepreneurship is not yet developed in Armenia, and in terms of employment and economic growth, family businesses are starting to grow mainly in the agro-tourism sector in certain regions (the towns of lievan, Vanadzor and Tsaghkadzor).

As mentioned before, the promotion of cooperation between education and business has been facilitated by external assistance, exchange of experience and involvement of foreign best practice.

Under the EU Sector Policy Support Programmes 2007, a study was carried out in 2009 to assess the feasibility of establishing a National Training Fund (NTF) to promote lifelong learning.

The study was based on a review of existing documents and on interviews with local stakeholders, including social partners, public institutions, companies, school training providers and employment centres.

<sup>&</sup>lt;sup>1</sup> The SMEDNC was established by the government of Armenia in 2002 and is authorised to provide state support to SMEs in the country. Support is provided through the implementation of annual programmes, with resources allocated from the state budget. The SMEDNC is governed by a board of trustees headed by the Minister of the Economy. It carries out its activities through a well-developed network of regional branches and representative offices covering all Marzes of Armenia, coordinated by the central office in Yerevan (www.smednc.am).

The study highlights that the annual offering of continuing training is rather limited and is provided by employment services, VET colleges, trade unions, NGOs and large companies, when they recruit new staff.

The outcomes of the study are:

- Virtually all stakeholders consulted were in favour of an NTF independent of government;
- All stakeholders in the Shirak, Lori and Tavush Marzes, whilst supportive of the concept of an NTF, were pessimistic about whether employers would be prepared, or able, to pay into the fund in view of the current harsh economic climate (the Chamber of Commerce in Tavush reported that it had been forced to suspend membership subscriptions because members could not afford them);
- The majority of stakeholders thought employers would be well motivated to pay into an NTF if it
  could be demonstrated that the NTF would help meet the skills needs of the labour market and its
  funding was transparent;
- A significant number of stakeholders considered it essential for international donor agencies to support the NTF in the early stages of development;
- A significant number of stakeholders thought the structure and composition of the NCVD could be applicable to the NTF also;
- 30% of stakeholders considered it essential for employers to be granted some form of tax relief if they were to be expected to contribute to the NTF;
- 30% of stakeholders felt that it would be very difficult for the government to grant tax relief for NTF contributions.

The conclusion of the study is that the right conditions exist in Armenia for the establishment of an NTF and that it could be organised with the legal status of a foundation, governed by a board of trustees, with equal tripartite representation in terms of contribution and decision-making power.

#### D. Recommendations

To overcome the existing difficulties and challenges, the following recommendations can be made:

#### 1. Supporting structures: policy level

- Revise existing laws regulating the education sector in a way that would contribute to the participation of social partners, defining shared tasks and responsibilities;
- Get social partners playing an active role in increasing the attractiveness of the VET system as a better form of access to employment opportunities;
- Provide financial incentives to employers who are willing to invest in the education sector;
- Include promotion of education—business cooperation as a key priority in strategic policy
  documents related to modernisation of VET and to the development of adult learning linked to
  labour market needs. Design an action plan, including timing, allocation of resources and
  monitoring mechanism.

## 2. Supporting structures: capacity development

- Organise opportunities at college level for students to obtain information and professional orientation;
- Organise seminars/events at central, regional and local levels where colleges and social partners can be invited to present their own experiences;
- Train staff in the MoES and SESA on the issue of social partnership;
- Organise competitions between schools and colleges to identify the best example of business and education cooperation;
- Create a website dedicated to business—education cooperation where proposals from employers, representatives of the education sector and students will be posted, together with the latest news concerning cooperation initiatives;
- Make donors and the MoES and MoLSI more active in promoting social dialogue, with implementation and monitoring mechanism.

### Annex

## **Yerevan State Trade and Service College**

- The college has contractual relations with more than a dozen enterprises and organisations where students are sent for internships and are later hired for different jobs.
- The college closely cooperates with the Golden Palace hotel complex, whose director is a member of the management board of the college.
- The staff of the Golden Palace hotel complex regularly deliver lectures for the students of the college, introducing them to the latest changes and innovations in hotel management.
- Employers' representatives participate in the board of examination.
- It was agreed that in summer 2010, 30 students from the college would work at the Water World complex.
- The companies Marnik and Eclectica are assisting with the development of students' practical skills in the fields of commerce and services, and helping the college with the purchase of sports equipment and the employment of college graduates.
- Around 70% of final-year students from the college combine work with the follow-up of their studies (they have signed up for individual study plans).
- Around 50% of college graduates are hired for work by the employers.
- The college and its staff are able to organise and conduct short-term trainings upon the demand of the employers.
- An employer has asked the college to train four specialists and has paid for their tuition fees.
- The staff of the college have been retrained and this has helped to gain the trust of employers.

## Yerevan State Armenian-Greek College of Tourism, Service and Food Industry

- The college actively works with a wide range of employers and tries to establish and develop active cooperation with all of them.
- Employers participate in the development of the practical skills and competencies of the students and provide support for the upgrading of college equipment.
- In 2009, the Gagik Tsarukyan Foundation allocated funds to award scholarships to the best students of the college with the aim of training high-level specialists for the tourism and catering industries. The foundation also provided donations for the college kitchen, sports equipment and a microbus.
- An agreement has been reached on further cooperation with other companies, particularly with regard to student placements for internships and organisation of official diploma award ceremonies.
- In organising and implementing internships for students, the college actively cooperates with leading enterprises such as Shant Plus, Yerevan Beer and Ani Plaza Hotel (British Council, 2010).

# Cooperation between the State Engineering University of Armenia and Synopsys Armenia

The State Engineering University of Armenia (SEUA) microelectronic circuits and systems programme became a member of the Synopsys Worldwide University Program thanks to a cooperation agreement between Synopsys Armenia CJSC and the SEUA.

Synopsys utilises industry–university cooperation based on industry cooperation with participating universities.

In the first years of the bachelor's programme, students obtain a basic education in mathematics, physics, etc. Having gained basic knowledge by the fourth or fifth semester, the best-performing students are selected to continue their studies at the Synopsys Armenia Educational Department (SAED) located at the SEUA. Selection of students is made by leading Synopsys technical experts and leading professors from the university. Further education in the bachelor's programme, master's programme and PhD studies is conducted on the basis of a tailor-made SAED curriculum for very large-scale integration design and electronic design automation (EDA). This curriculum is based on the requirements of leading industry and IT companies, with the involvement of the best professionals and professors. Studies are carried out in ad-hoc equipped classrooms donated by Synopsys (located in both Synopsys Armenia and the university), where each student has access to the latest EDA software tools via the network. The teaching and supervision of class projects, diploma works, master's theses and PhD dissertations are defined in cooperation between the industry projects at Synopsys Armenia and experienced professors from the university. Upon the successful completion of the SAED program, graduates are qualified to work for Synopsys Armenia as well as other IT companies.

- Synopsys Armenia provided \$15 000 to update the SAED technical library with modern technical books.
- Regular meetings of the board are organised to discuss the project results and plan educational programmes for the coming years.
- As a result of the cooperation between Synopsys Armenia and the SEUA, so far 249 graduates have obtained bachelor's degrees and 201 have continued their studies to pursue master's degrees. Seven out of 107 students who received master's degrees have continued on to a PhD.
- Synopsys Armenia has employed 83 SEUA graduates.
- In 2010, 97 students studied in the bachelor's programme, 94 studied in the master's programme and five pursued their PhD.

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