

**New Economy**

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**TRANSFORMATION PROCESSES IN UKRAINE:
INTERNATIONALIZING EDUCATION
OF FUTURE LEADERS
FOR INTERNATIONAL ENTERPRISE
COOPERATION****Abstract**

The author unveils the opportunities for development of the knowledge economy in Ukraine and inclusion of the latter into the European research and education areas.

Key words:

Bologna process, European education area, European Research Area, higher educational institutions, integration, Joint European Project, knowledge economy, programme of two diplomas, Ternopil State Economic University.

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1. The Knowledge Economy: A Standpoint of Ukraine

The current stage of the world economic development is characterized by the emergence of the knowledge economy. Its essence consists in an unprecedented acceleration of the tempos of knowledge creation, accumulation, and depreciation. An economy based on knowledge functions and develops only on the condition of availability of the specialists who are informed about newest achievements of scientific and technological progress, experienced in their use, and capable of developing and disseminating the obtained knowledge.

As the world economy stepped into its new stage of development – the knowledge economy – the terms of competition between countries have substantially changed. Today, the difference in the level of economic development is much less preconditioned by the availability of natural resources. To the foreground comes the ability of a nation to accumulate human capital, create new knowledge and introduce it in the production system. Thus, special focus should be directed to increasing the share of intangible assets in the total value of productive capital and GDP (Abramovitz, David).

After it achieved independence, Ukraine has spent many years in a futile search for the model of development. This turned very costly for the country: before the presidential elections of 2004, it came up to show signs of economic decline. In 2004, the volume of GDP reached only 61% of its 1990 level. Ukraine lived with oligarchic, energy-wasting, energy-dependent and uncompetitive economy which exhausted its resources.

During 2005–2006, Ukraine started a new page in its history. Then, the change of generations in the central bodies of power, mostly president administration and 2/3 of the Parliament, has finally taken place. Ukraine was given the status of the country with market economy. In fact, almost all barriers to entry into the World Trade Organization (WTO) were removed in 2006. In 2005, substantial success was achieved in introducing a socially-oriented model of economic development. Ukraine managed to move up from 122nd to 107th place in the world corruption rankings. In February 2006, the International Anti-Money Laundering Group (FATF) has crossed Ukraine out of its «black list» of the countries that put insufficient efforts into prevention of legalization of illegal incomes. Finally, Ukraine carried negotiations with the EU on the establishment of a free trade area in 2007 and signing an Agreement on Association in 2008. The ultimate goal of the integration process is to meet the Copenhagen Criteria and obtain membership in the European Union.

The knowledge economy is a chance given by history to the new power as a present. So sees it the President of Ukraine Viktor Yushchenko. In his Address to the Parliament of February 9, 2006, he states: «The way to economic prosperity, which has taken Europe a hundred of years to pass, we have to pass

in five to seven to maximum ten years. Ukraine can come about as a full-fledged state only if it realizes an economic leap forward. It must take on this challenge and become the place for development of the new models of economic growth». Consequently, the search for the model of realizing an economic miracle with Ukrainian specifics moves onto the governmental level. This model is related to the knowledge economy. «Our task consists in using our own scientific potential to reach the level of the developed countries of the world. For that, we must invest in human resources (i. e. in raising their qualification), in the research and development of new technologies», asserted V. Yushchenko in his speech to the Parliament. In Ukraine, a programme titled «Competitive Education» was elaborated, which stipulates for improvement of the quality of education, support of talented children, rebirth of interest in scientific research, support for increasing the number of skilled labour force, especially in applied sciences.

2. Inclusion of Ukraine into the World and European Research and Education Areas

On May 19, 2005, in Bergen (Norway), Ukraine has become one of the 45 participants in the Bologna process. Thus, new priorities were set in the bilateral international relations of higher educational institutions. These international relations develop through joint research projects, student exchange and teacher exchange, through creation of integrated study programmes, awarding of double diplomas, and other types of cooperation. The growing attractiveness of the Ukrainian education is proven by the fact that today the number of foreign students studying in Ukraine is by 5000 students higher than in the times of the Soviet Union. At the moment, 35000 persons from 131 countries study at 190 higher educational institutions.

The Bologna Commission has determined specific stages and ways for the development of higher education in Ukraine. Throughout 2007, the Ministry of Education and Science of Ukraine will be carrying out a monitoring on the questions of achieving the goals of the European education area. It is planned that by 2010, the higher education of Ukraine will be fully adapted to the requirements and principles of the Bologna process.

The integration of Ukraine into the world and European education areas demands new approaches to education of academic staff. Unfortunately, the number of the latter has strongly decreased during the years of independence. If in 1990 there were 492.2 thou. academic employees, in 2004 their number was only 173.6 thousand persons, that is a 2.8 decrease (Table 1).

Table 1.

Academic Staff in Ukraine (thou. persons) [3]

	1990	1995	2000	2001	2002	2003	2004
Number of academic staff involved in the field of research and technology	494.2	293.1	188.0	181.5	178.0	173.9	173.6
Number of graduate employees involved in the field of research and technology	313.1	179.8	120.8	113.3	107.4	104.8	106.6
of which:							
awarded post-doctoral degree (Dr.sc./Dr.habil.)	3.2	4.1	4.1	4.0	4.0	4.0	4.1
awarded doctorate (Dr.)	29.3	22.9	17.9	17.4	17.1	16.8	17.0
Number of employees involved in sideline research and technology activity	36.0	41.7	53.9	55.4	57.2	63.4	65.6
of which:							
awarded post-doctoral degree (Dr.sc./Dr.habil.)	2.9	4.2	5.5	5.1	5.5	6.1	6.4
awarded doctorate (Dr.)	21.1	18.6	23.3	19.4	20.6	22.8	23.6

Under these conditions, the only solution is to accelerate scientific research.

One of the ways to propel the integration of Ukraine into the European Research Area is deeper involvement of the younger and more talented specialists in scientific research and technical projects. The foundation for this is the high quality of education gained at Ukrainian universities, especially in the fields of natural and technical sciences. Among the achievements of our students, we would like to mention the following: in 2005 Ukrainian students took 2nd place at the mathematics Olympiad in Iran; 19 students were prizewinners at an international Olympiad in Bulgaria; in Romania, the Ukrainian team won and become finalist of the world programming championship.

An important tendency in Ukraine is a fast increase in the number of higher educational institutions (of III and IV levels of accreditation) and in the number of young people that study there. In 2004/2005 academic year, the number of higher educational institutions of III and IV levels of accreditation was 2.3 times higher than in 1990/1991. The number of students in these institutions reached 2026.7 thou. in 2004/2005, which was a 2.3-fold increase compared with 1990/1991 (Table 2).

Table 2.

Higher Educational Institutions in Ukraine (at the beginning of study year) [3]

	I–II Level of Accreditation					III–IV Level of Accreditation				
	1990/ 91	1995/ 96	2000/ 01	2003/ 04	2004/ 05	1990/ 91	1995/ 06	2000/ 01	2003/ 04	2004/ 05
Number of Higher Educational Institutions	742	782	664	670	619	149	255	315	339	347
Students, thou. persons	757.0	617.7	528.0	592.9	548.5	881.3	922.8	1402.9	1843.8	2026.7
of which Full-Time Students	510.7	455.6	400.8	434.7	397.6	520.0	616.3	859.5	1063.8	1155.5
First Year Students, thou. persons	241.0	188.8	190.1	202.5	182.2 ¹	174.5	206.8	346.4	432.5	475.2* ¹
of which Full-Time Students	155.8	142.2	141.2	148.1	131.8	110.9	150.7	219.5	269.7	287.5
Graduates, thou. persons	228.7	191.2	148.6	162.8	148.2 ²	136.9	147.9	273.6	416.6	316.2* ²
of which Full-Time Students	143.9	131.5	109.5	116.9	104.8	73.3	91.7	189.1	245.6	173.5

¹ students going through full study cycle for the first time (students of vocational training or second higher education not included);

² successful graduates (part-graduates, vocational training graduates and graduates of second higher education not included).

In general, the perspectives of Ukraine in the development of many directions of the knowledge economy are estimated as rather high. Thus, a special focus at the parliamentary hearings of September 21, 2005, devoted to the issues of information society development was laid on the existence of a large volume of hidden exports of the IT industry. It increased in 2004 by 50%. In 2005 this figure was estimated to rise by another 60-70%. It is expected that Ukraine will have a real chance to export \$3.5 to \$5 bln. worth of its IT services and corresponding products by 2010. By that we mean the programming products and high-technology goods assembly services for export to Europe and other territories. According to expert evaluations, Ukraine's yearly earnings from off-shore

realization of programming services will rise by 20–25% and reach \$1.5 bln. in the next couple of years. This will outperform exports of food products by 1.5 times¹.

Meanwhile, the government of Ukraine prepares drafts of the laws aimed at reaching considerable progress in the development of high technologies. Among them is the draft of presidential decree titled «Ukrainian Silicon Valley». Within this project, on the basis of science and research institutions of the National Academy of Sciences of Ukraine and universities in 5 regions of Ukraine, international technology centres will be created. These centres will serve to organically tie scientific findings to commercial opportunities. The knock-on financing allotted to the development of the «Ukrainian Silicon Valley» constitutes \$100 mln. for private investments and creation of 1.5 thou. workplaces.

3. Peculiarities of Educating Economists and Executives

In its times as Soviet Republic, Ukraine had the highest level of quality of specialist preparation. These traditions are still maintained in fundamental, natural and technical sciences. Unfortunately, this is not fully true for education of specialists in the field of economics and management.

The problem of educating specialists for business consists in the fact the faculty of higher educational institutions, under transition to market economy, had no experience and knowledge necessary to teach the principles of the market economy. Lecturers had to re-educate themselves during the transformation phase, but understandably, they still were the representatives of the centrally-planned economy. The new generation which came into higher education and economics has passed the knowledge which it obtained mainly from the older generation on to the next generation.

Today, the content of the study process at the Ukrainian higher educational institutions complies with western standards. Best foreign textbooks are being translated in Ukraine. New textbooks, which convey the findings of the world's prevailing schools of economic sciences, are being created. Many lecturers had training in Europe and the USA, some of them obtained their education in best universities of the world. Yet, even today, there is a relatively large number of teaching staff who do not possess enough knowledge of the modern economic theories or are not capable of applying them effectively in practical decision-making.

¹ http://www.rada.gov.ua/zakon/new/par_sl/sl210905.htm.

After evaluation of the quality of academic staff preparation providing the preparation of specialists for the economy, one can conclude that they have fully mastered the fundamentals of their specialities and can ensure the level of teaching comparable to western countries. However, the Ukrainian lecturers at economic universities have not yet gained worldwide recognition and thus cannot influence the development of the world economic science. That is why their academic schools are primarily of regional significance, and the results of their studies are used mostly within their own country or the CIS.

In view of the level of preparation of faculty members, and in order to train the executives who will be capable of taking effective decisions in the course of Ukraine's transition to the knowledge-based economy and accelerated development, we can suggest the following measures:

- to introduce teaching staff attestation on economic disciplines, such as macro- and microeconomics, economic mathematics and foreign language;
- to recognize the priority of publications in the foreign economic periodicals;
- to translate reputable academic periodicals into Ukrainian or Russian;
- to supply university libraries with foreign economic literature;
- to provide centralized access to worldwide electronic publications;
- to introduce an obligatory study of selected disciplines in foreign languages;
- to involve foreign specialists in the teaching process;
- to inspect at least 2-3 exams carried out by Ukrainian teachers by foreign experts;
- to introduce the defence of Specialist's and Master's theses in foreign language and with participation of foreign experts;
- to differentiate diplomas into two types: diplomas approved by foreign experts and ordinary diplomas.

4. Participation of TSEU in the International Research Area

The development of scientific activity at TSEU is closely tied with the objective process of Ukraine's integration into the worldwide science area and creation of the European Research Area. At the same time, the international scientific activity of TSEU is characterized by cooperation with the countries of the European Community and CIS, as well as with the USA and Canada. The academic cooperation is organized on the basis of contacts with higher educational institutions in 38 countries. TSEU is a member of the Association of European Education. In its international activity, TSEU uses the financial support of well-known foreign institutions, including the following funding programmes:

- Programme of Trans-European Cooperation in the Field of Higher Education – Tempus Tacis;
- Programme of German Academic Exchange (Deutschen Akademischen Austauschdienst – DAAD);
- Programme of International Association for Cooperation of Scientists from Newly Independent States of Former Soviet Union – INTAS;
- Research programme of NATO;
- Programme of small projects of Bisto/TACIS;
- Programme for Structural Reforms and Supplementary Measures in Higher Education (TEMPUS-SCM);
- Programme of the Volkswagenstiftung;
- Fund for joint Ukrainian-Greek academic projects (2005–2007).

The scientists of the university took part in the elaboration of the Budget Code of Ukraine, Strategy of Economic and Social Development of Ternopil Region in 2004–2015; Programme for Research and Technological Development of Ternopil Region in 2004–2010; models of reformation of inter-budgetary relations and consolidation of financial foundations for local government; Master's programme in speciality «Public Service»; teaching module for Master's programme in speciality «Public Service»; teaching module for Master's programme in specialization «World and European Economy» within the speciality «Public Service»; elaboration of the draft of the Law of Ukraine «About Territorial Structure of Ukraine», etc.

The presentation of the scientific schools of the university takes place at international, Ukrainian and regional conferences. For the last 3 years, 40 such conferences have been held. Every year, starting with 1994, together with J. W. Goethe University (Frankfurt on Main), University Lyon-2 and Erasmus University, TSEU has been organizing international conferences in Yalta (the

Crimean Peninsula) dedicated to certain aspects of the integration of Ukraine into the European Union.

In 1994–2005, TSEU organized 11 conferences. Each of them was focused on specific aspects of Ukraine's integration into the European Union, for example:

- Theory and Strategy of Economic Integration of Ukraine into the EU (1996);
- Microeconomic Aspects of Integration (1997);
- Socio-Economic and Regional Questions of Integration (1998);
- Investment Aspects of Integration (1999);
- European Studies (2000);
- Comparative European Studies (2001);
- Globalization and New Economy: Consequences for Europe and Ukraine (2002);
- International Movement of Capital (2004);
- International Markets for Services and Ukraine (2005).

The last conference took place on 22–24 September, 2005. The organizational committee received 94 scientific works from 114 authors from 8 countries (Bulgaria, Greece, Estonia, India, Germany, Poland, Russia, and Ukraine). The works of 74 authors were published in two issues of the specialized academic journal *The Herald of TSEU* (No. 5–1, 5–2. – 2005).

Every two years TSEU organizes international scientific symposia titled «Intellectual Means of Data Collection and Modern Computing Systems» held either in Ukraine or abroad (2001 in Jalta, 2003 in Lviv, 2005 in Sofia; in 2007 it is planned to be held in Bjanska Byala).

In 2001, TSEU has launched the publication of the *Journal of European Economy*. The journal focuses on the market of Ukraine, the CIS, and Europe. The goal of the journal is to disseminate newest findings in actual theories and concepts of international economics, results of the studies about transition economies and peculiarities of global and European integration, and the place of the European countries in the world economy. The journal includes the following rubrics: economic theory, regionalization and globalization, macroeconomics, microeconomics, new economy, financial and banking services market, comments of journalists on international issues, statistics.

The *Journal of European Economy* is published quarterly in three languages: Ukrainian, Russian, and English. The Editorial Board of the journal is international, with well-known scientists from Ukraine, Greece, Netherlands, Ger-

many, Russia, France, Switzerland, and Japan. This also helps to embrace many aspects of the world economy.

The journal is open for authors who wish to present their research and discuss it with other scientists from different countries and different branches. It has already become the Journal's tradition to provide the reader with the information on the newest ideas in the European and world economic science. The journal also attempts to stir up the interest of the foreign reader to Ukrainian research. At that, an important role is played by the language policy of the journal.

5. Participation of TSEU in the International Education Area

The EU's 6th Framework Programme for Research and Technological Development (2002–2006) was set up in order to stabilize the scientific potential of CIS states and to contribute to its consolidation through cooperation among young scientists. Within the framework of international cooperation, the number of the university's faculty members who passed additional study or participated in conferences abroad increased. It has become practice for foreign academics from leading European universities to participate in the educational process and scientific conferences of TSEU.

In general, TSEU maintains contacts with higher educational institutions of 38 countries. The cooperation is related to fields of student, academic and teacher exchange, participation in conferences, joint scientific research, attraction of foreign investments. The university maintains very close relations with higher educational institutions in Austria, Belarus, Bulgaria, Great Britain, Greece, Italy, Spain, Canada, China, Netherlands, Germany, Poland, Russia, USA, and France.

The mobility of students and professors, as well as other teaching staff, has increased considerably during the last 3 years (Table 4). Similarly increased, for example, the average number of teaching staff and doctorate students who had research traineeships and training abroad – by 31%, for students this indicator has grown by 13%, whereas the participation in academic conferences has grown by 30%. The involvement of foreign lecturers in the educational process decreased in 2002 in relation to 2001, but increased again in 2003 and 2004.

In 1999–2007, TSEU will realize three Tempus-Tacis projects financed by the EU. Their total value reaches ca. 1.5 mln. Euros. These project will provide an opportunity to develop and introduce new curricula in cooperation with European and Ukrainian partners.

Table 3.

Mobility of Students, Professors and other Faculty Members

Year	Research and Study		Participation in Scientific Conferences	Involvement of Foreign Teaching Staff in Educational Process	Total
	Faculty Members, Doctorate Students	Students			
2001	22	96	53	57	228
2002	22	192	76	42	332
2003	35	56	65	69	225
2004	30	92	65	60	247
Average, from 2001 to 2004	29	113	69	57	268
Coefficient of Change, from 2002 to 2004 as against 2001	1.31	1.13	1.3	1.0	1.18

Table 4.

Participation of TSEU in Joint European Projects and Programmes

Project Title	Partner	Project Financing, thou. Euros
1. European Economic Studies and Business Relations (1999–2002)	1. J. W. Goethe University (Frankfurt on Main, Germany) 2. Erasmus University (Netherlands) 3. University Lion-2 (France)	500.00
2. Restructuring the B.Sc. in Economics and Management (2002–2004)	1. Aarhus Business-School (Denmark) 2. Metropolitan University Leads (UK) 3. Inholland University (Netherlands)	487.00
3. European Standards in Teaching International Tourism Economics (2004–2006)	1. Technological Institute of Western Macedonia (Kozani, Greece) 2. TU Katalonia (Barcelona, Spain) 3. Kyiv International University (Ukraine) 4. Zhytomyr Technical University (Ukraine)	475.00
4. Integrated German and Ukrainian Language Study Programme with Two Diplomas (2000–2007)	1. Dresden University of Technology (Germany)	120.00
5. School of European and Polish Law (2004–2006)	1. Jagelonskij Universität Krakow (Poland)	Traineeship stipend, study process

The effectiveness of integration into the European Research Area can be shown on the example of the Integrated German- and Ukrainian-Language Programme with Two Diplomas in International Economics. It was conceived and realized together with Dresden University of Technology and with financial assistance of DAAD. In view of this, Dresden University of Technology can hand out its Diploma to graduates of the Ukrainian university, even though they did not realize a full-length study in Dresden. The beginning of the programme fell on 2000/2001 academic year. The goal of the programme is to educate professionally qualified specialists in the field of economics in compliance with European standards. In reality, this offers the recognition of the Ukrainian diploma on the basis of meeting the requirements to graduate specialists, which are valid in Germany.

The model of the double-diploma study programme can be represented by the formula «3 + 2 + 1». During the first three years, the students study in Ternopil. The teaching staff of DUT performs part-time lecturing (moduls) in Ternopil and carries out subsequent examination. During the fourth academic year, the students spend at least one semester at DUT and finish their Bachelor's programme at TSEU. During the fifth academic year, the students continue their study in Dresden, where they are expected to obtain a total of 120 credits, which is the condition to receiving the German diploma. The last year they spent in Ternopil studying at the Ukrainian Master's programme and working on their Master's theses, which they can defend either in Ternopil or in Dresden.

At the present, nearly 150 students study at the integrated programme, 35 of which are in Dresden. In Dresden they can choose one out of ten specializations: international economic relations, economic policy, marketing, tourism economics, industrial management, information systems in industry and trade, enterprise accounting/controlling, organizational management, personnel management, and communications economics.

The cooperation has so far allowed 35 Ukrainian lecturers from Ternopil to pass a total of more 1800 days of traineeship at Dresden University of Technology with financial assistance of the DAAD.

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