

THE EU POLICY IN THE RESEARCH AND DEVELOPMENT - THE ROLE OF SUCEAVA UNIVERSITY IN THE REGIONAL CONTEXT

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Abstract:

A university is an institution of higher education and research, which grants academic degrees at all levels (associate, bachelor, master, and doctorate) in a variety of subjects. A university provides both undergraduate education and postgraduate education. The European Union gives a main role to the research, development and innovation domain (RDI) for consolidation of the competitiveness and for the economical growth.

In Romania the most important objective of the Universities is the education of the young generation and its through specialization in various fields of activity. The goals of the university in th is direction are: boost the cross-border economic development process by increasing the amount of entrepreneurs who are establishing start ups cross - border; to upgrade human resources by enhancing the number of start -up entrepreneurs cross-border with viable business plans and by training local trainers. In University of Suceava there are some projects will help to consider promoting entrepreneurship project outside of formal school activity as an educational leisure and as a learning activity for young people. Those projects are a precursor for the establishment of business incubators in the region. With those project crucial insights will be gained in the need, willingness and possibilities for the establishment of business incubators in the cross-border region in the coming years.

Keywords: development, education, EU policy, research, university

1. INTRODUCTION

In our society, the education and research -development activity has become two vectors of the economic development, where all the nations – including EU – explicitly situating these components on long term strategies’ basis. If the labor force, meaning the employees of a country or company, presents a high education/qualification, it will be obviously for that country/company to dispose of a competitive advantage.

2. THE EU POLICY ON EDUCATION

The development of modern economies, especially in the area of those three “poles of power”, EU, USA and Japan, has determined the reconsideration of the educational politics and the extension of the different “schooling” forms beyond universities lectures. In EU, next to the communitarian institutions, the national authorities and diverse international organizations/organisms (OECD, World Bank, WTO etc.) give more importance to the sector of education and is offering assistance in order to assure the quality of the educational processes for being a factor of human development, sustainable economical growth and social cohesion.

OECD has proposed for the first decade of the new millennium some strategic ob jectives in this field, objectives that, implicitly, are adopted even in EU (1):

1. *The promotion of the continue education - lifelong learning.*
2. *The evaluation and improvement of education results*
3. *The promotion of a superior qualitative didactic activity.*
4. *The reconsideration of superior education in the global economy.*
5. *The construction of social cohesion through education.*

Essentially, can be said that the world countries become established in global competition by *education and science*; especially *the science* is translating in general economic growth by multiple and complex ways, and in the USA case, *the estimations shows that the science itself has represented half of the American economic growth in the last five decades* (2).

The major changes that influence the conditions in which in the present is unrolling the educational process in the entire world, changes that has to be considered even by EU includes (3):

- *The globalization* is emphasizing leading to an increment of the persons' mobility, of the access to knowledge out of the national borders, to the growth of demand for education, including *e-learning*, to the growth of the adults needs for continuation of their education, to the increasing of investments etc. As a result the opportunities for the increasing and diversification of the superior education "market" are growing.

- *The information technology and communications* are rapidly extended in entire world concomitant with their application possibilities in the education field. In many parts of the world the information technology can assure the access to education for the persons that cannot be served by the traditional institutions.

- *The competition in superior education* has grown significantly in the last years in USA, Europe and Asia; the competition in this field will put face to face the European universities and the American ones, in connection with public politics from other fields, such as research, innovations, and the new technologies etc.

- One of the objectives mentioned in March 2000 at Lisbon is that EU should become *the most competitive and dynamic economy* of the world, based on knowledge, capable to assure a sustainable economic growth and many better work places and a bigger social cohesion. The European Council has underlined the determinant role of the educational system in reaching this goal and in promotion of the humanist values of the European society.

In this context the ministries of education from the member states has adopted the following strategic goals for this decade (4):

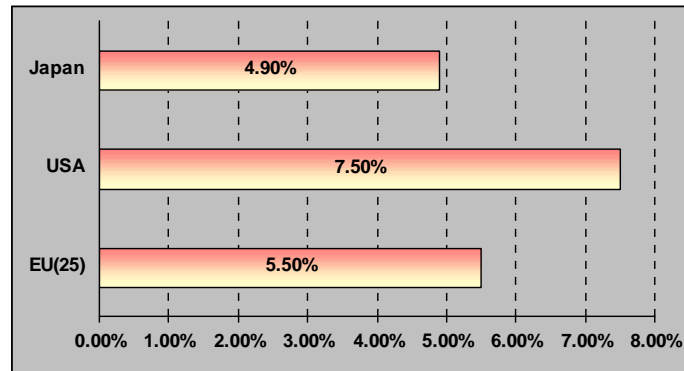
1. the growth of quality and efficiency of the educational system in EU;
2. the facilitation of the access to the diverse forms of education and professional formation for all the Union citizens;
3. The opening of the educational system to entire world.

Synthetic the statistic data related to the expenses for education in EU compared with USA and Japan shows that the EU average (25) is situated significant behind the financial effort made by the USA or Japan (according to data from the following).

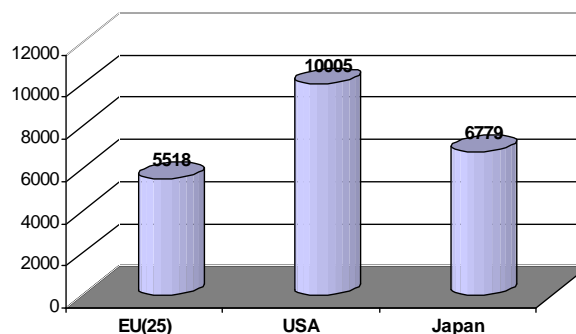
Table no 1. Total expenses for education

	Weight in GDP (Public and private total) (%)	Annual expenses per student/pupil (EUR/PPS)
EU (25)	5,5	5518
USA	7,5	10.005
Japan	4,9	6779

The source: * * * *Europe in Figures – Eurostat Yearbook 2006-2007*, <http://ec.europa.eu>

Figure no. 1. The Weight expenses for education in GDP in EU, USA and Japan (%)

The source: * * * *Europe in Figures – Eurostat Yearbook 2006-2007*, <http://ec.europa.eu>

Figure no. 2. Annual expenses per pupil/student in EU compared with USA and Japan (EUR/PPS)

The source: *Europe in Figures – Eurostat Yearbook 2006-2007*, <http://ec.europa.eu>

In 2002 was adopted the *Education and Professional Formation 2010* program, which will be applied by the „open coordination method ", respectively by Member States and European Commission formulation in common of the leading ways of actions. Systematic implementation of the *Education and Professional Formation 2010* program supposes the finalization of the document which promotes the *European Qualifications Frame (EQF)* for facilitating the mobility in Europe, an instrument utile for classification and comparison of the learning results at national and sectoring European level.

The access to lifelong learning for all EU citizens is regarded as the fundamental principle of the national education and professional formations systems. All of the EU member states recognize the fact that the modifications occurred in conditions, frame and nature of the work necessarily impose the application of the *lifelong learning* concept, respectively learning and information from the individuals, companies, institutions, society and the all economy sides. It is appreciated that the dimensions of the current economic and social changes and the rapidly transition toward *a society based on knowledge* impose a new conception over the education and professional formation and also the *making of an European area of lifelong learning* (5).

After Lisbon, Stockholm and Feira European Council, in the present they overtake to the *Memorandum on Lifelong Learning*, having certain strategic objectives:

- *the construction of public-private partnerships* (between companies, universities, schools, NGO-s, research centers etc.);
- *the resources augmentation for education* (both from the state and from the private sources for reaching 7-8 % from GDP);

- *the access facilitation to education for all*, inclusively by consolidation of some local centers/universities that offering *learning*.

The main finding of the 2006 edition of the European Commission's annual report on progress towards the Lisbon objectives in the field of education and training is that additional efforts are urgently needed to achieve the five benchmarks by 2010. The Commissioner concluded that "without better education and training systems, and wider participation in them, Europe's competitiveness cannot be improved. Investment in human capital is therefore clearly a vital investment in Europe's future"; among the main findings of the report (6):

> In the EU, about 6 million young people (18-24 years olds) have left education prematurely; if we are to reach the European benchmark of no more than 10% early school leavers, then 2 million of these young people would need to continue in education.

> If present trends continue, some 1 million students will graduate in math, science and technology (MST) every year in the EU in 2010, compared to the present level of 755 000 graduates.

> In order to achieve the EU benchmark of an 85% upper-secondary school completion rate by 2010, an additional 2 million young people (aged 20-24 years) would need to complete upper-secondary education.

> An additional 4 million adults would need to participate in lifelong learning within any four-week period in 2010 if the EU benchmark of 12.5% participation rate is to be achieved.

> About one in every five 15-year-old pupils in the EU is presently a poor reader. Reaching the European benchmark for 2010 would imply that 200 000 pupils would have to improve their standard of reading.

> The EU would need to more than double the amount it invests per tertiary-level student (i.e. an increase of around 10 000 euros per year) to match the spending level in the USA; public investment in education and training as a percentage of GDP has grown slightly since the adoption of the Lisbon strategy, and is comparable with levels in the USA (and higher than in Japan). However, rates of private investment in educational institutions are modest in most Member States compared with the leading countries in the world (incl. the USA), especially in higher education.

> During the coming 10 years, the EU needs to attract at least 1 million newly qualified teachers in order to replace those who will leave the profession due to retirement.

> Most EU students are not taught at least two foreign languages from an early age, as requested by the Barcelona 2002 European Council; at present, an average of only 1.3 and 1.6 foreign languages per pupil are taught in the Member States in general lower - and upper-secondary education respectively.

3. THE EU POLICY IN THE RESEARCH AND DEVELOPMENT (R&D)

The European Union gives a main role to the *research, development and innovation domain (RDI)* for consolidation of the competitiveness and for the economical growth; this domain will be called synthetically *Research and Development (R&D)*. The important investments in research, development and innovation are essential for prosperity and economical growth at the level of those 27 member states of the EU; gradually, some strategies of the member states have emerged with projects/ programs promoted by the Council and by the European Commission. Especially beginning with 1983, after some evaluation that presented a *disastrously situation* in EU, comparing with USA and Japan, in research and development domain, and can be discussed a Community's policy of the EU, that, essentially have included 7 *Framework Programs* (7).

Starting with Lisbon Strategy, the European Union launched for the period 2007 – 2013 a set of initiatives that regards the research and innovation, the global competitiveness of the universities and research institutes, entrepreneurial abilities development and knowledge transfer in products and services.

The legal basis of the EU in R&D domain, starts with the CECO Treaty, Euratom Treaty, EEC Treaty, European Unique Document (Act), Maastricht Treaty etc(8).

As Toffler remarked, at all analysis levels, from the life style and culture continuing with military problems, but most of all business environment and economy, the difference between Europe and USA become more obvious.

The EU goal, mentioned through the Lisbon Strategy, is that until 2010 the R&D expenses should get to an intensity of 3% (indicator calculated as weight of the R&D expenses in the GDP), and from this 70% to be financed by the business enterprise sector. In 2004 two of the EU member states have achieved this indicator, and even exceeded; we mention Sweden and Finland that registered intensities of the expenses with R&D of 3,7% and 3,5% respectively. Per total, in which regards this indicator, the EU is situated at a modest level, comparing with other developed economies, if we are referring to USA and Japan, where this indicator reach the level of 2,66% and 3,2% respectively (9). (Figure no. 3), although in 1995-2004/2005 in these two countries the expenses with R&D had a fluctuant evolution(10).

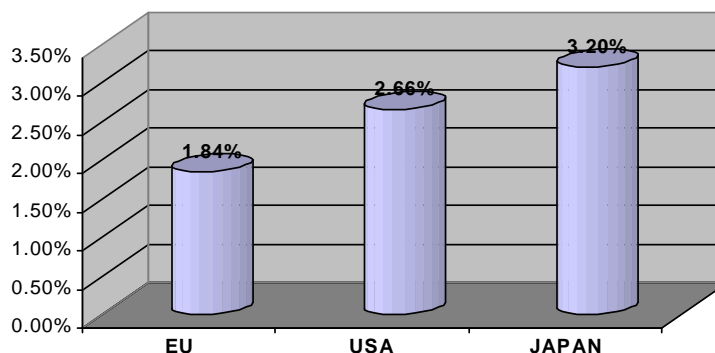
Table no. 2 The intensity with the R&D expense in EU, comparing with USA and Japan

	Weight in GDP, total public and private, 2004 (%)	R&D annual expenses per citizen (USD/cit)
UE (27)	1,84	463 *
USA	2,66	978
Japan	3,20	893

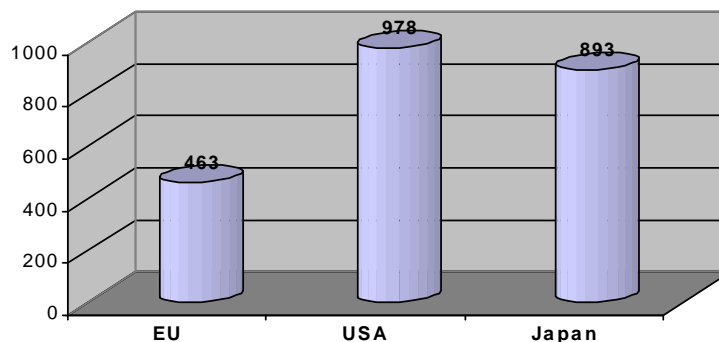
Source: Adapted after Science, Technology and Innovation in Europe, EUROSTAT Pocketbooks, 2007; Europe in Figures – Eurostat Yearbook 2006-2007, <http://ec.europa.eu>; * the value of this indicator is for EU 25; the absolute value for the R&D/citizen is for the year 2003.

The data included in the table shows a suggestive image regarding the position of the EU comparing with the USA and/or Japan in which regards intensity of the R&D activity, as is presented, in the following charts (11).

Figure no. 3. EU versus SUA and Japan by the R&D weight in GDP



Source: Adapted by Science, Technology and Innovation in Europe, EUROSTAT Pocketbooks, 2007; Europe in Figures – Eurostat Yearbook 2006-2007, <http://ec.europa.eu>; * the value of this indicator is for EU 25; the absolute value for the R&D/citizen is for the year 2003.

Figure no. 4. EU versus USA and Japan by the annual value of the R&D/capital

Source: Adapted by Science, Technology and Innovation in Europe, EUROSTAT Pocketbooks, 2007; Europe in Figures – Eurostat Yearbook 2006-2007, <http://ec.europa.eu>; * the value of this indicator is for EU 25; the absolute value for the R&D/capita is for the year 2003.

Expenditure on research and development (R&D) is a key indicator of government and private sector efforts to obtain competitive advantage in science and technology. In 2004, research and development amounted to 2,3% of GDP for the OECD as a whole (12).

Research & Development in the EU in relation to GDP, EU25 R&D expenditure stable at 1.9% in 2004. In real terms, EU25 R&D expenditure grew by 1,3% per year between 2001 and 2004. In 2004 the EU25 spent nearly 200 billion Euro on Research & Development (R&D). R&D intensity (i.e. expenditure as a percentage of GDP) in the EU25 stood at 1,90% compared to 1,92% in 2003. R&D intensity remained significantly lower in the EU25 than in other major economies. In 2003, R&D expenditure was 2,59% of GDP in the United States, 3,15% in Japan, while it was 1,31% in China³. R&D expenditure in the EU25 rose by 1,3% in real terms on average per year between 2001 and 2004, compared to -0,1% in the United States and +1.8% in Japan between 2001 and 2003(13).

In 2003 the business sector financed 54% of total EU25 R&D expenditure, while the shares of the business sector in the United States and Japan were 63% and 75% respectively.

4. THE ROLE OF SUCEAVA UNIVERSITY IN THE REGIONAL CONTEXT

For the time being, there are almost 700.000 students in Romania, within about 70 public or private universities; from those 70 university, 49 are public, achieving respectively a part of yearly financing from state budget, but disposing of autonomy as regards the own strategies, policy in HRM (Human Resource Management)etc.

The typical organizational structure of a Romanian university – similar to situation of other western countries – include as basic “cell” the *chair* or *department*; this flowchart part has real competencies at three levels: educational (teaching -learning); of scientific research; managing.

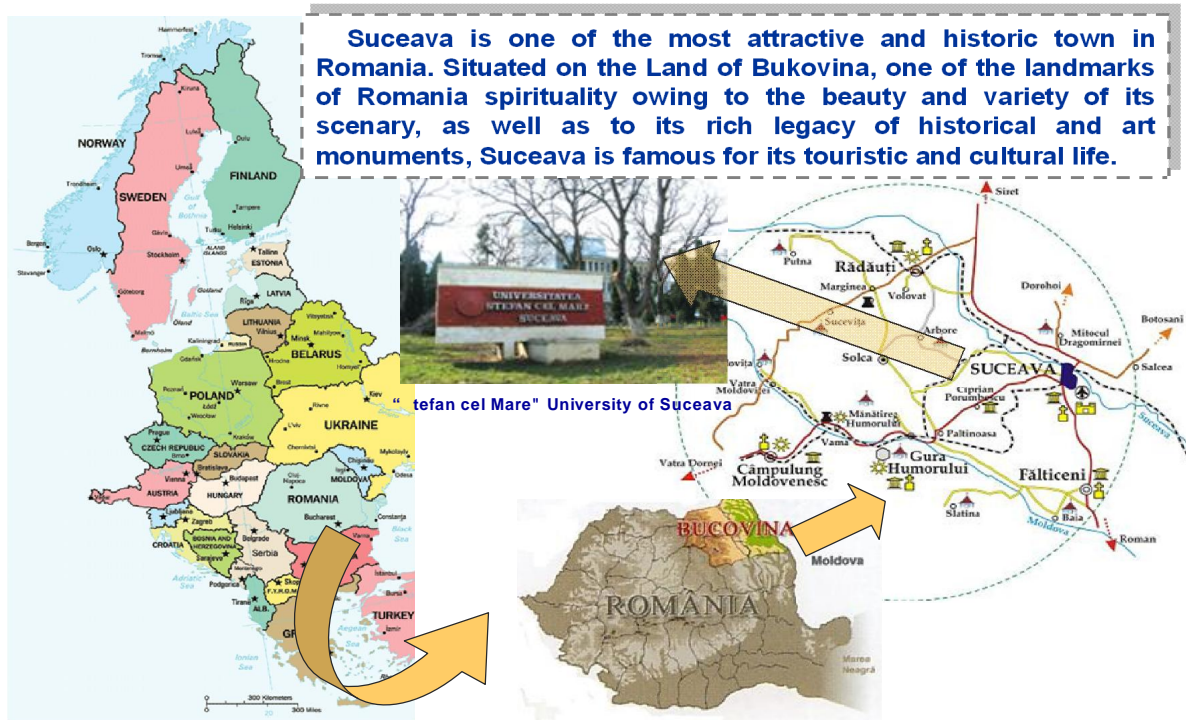
Short History of the Suceava University

Taking the name of our Moldavian prince **Ștefan cel Mare**, the University is very much a part of the Town and develops in close connection with the cultural and historical realities of the area (Suceava Town: 110,000 people; Suceava County: 700,000 people); the main part of our students came from: Suceava County; Neamt County; Botosani County.

It continues as well the cultural traditions of higher education in Bukovina, as they have been represented by:

- the Academy of Putna (1500-1778 known as the Theological Institute from Putna, Bukovina);
- the University of Cernauti(1875-1918, in that period Suceava was part of Bukovina, region with capital Cernauti); in 1918 Romania became a unitary national state;
- the Faculty of Forestry in Campulung Moldovenesc(1950-1960).

The first step for Suceava University was made in 1963, by setting up the High Education Institute of Suceava; in 1990, the Government decided to give the status of *University* to the previous High Education Institute and so, *Stefan cel Mare University of Suceava* became one important new medium size university in Romania.



Research and Development at the Suceava University

The University Stefan cel Mare is one of the most important institutions in the higher educational field in the north – east of Romania. The university is offering a modern educational-curriculum, following the example of modern universities of Europe, but, in the same time, keeping her own traditions.

The University Stefan cel Mare is a public institution educating in total 12000 students in nine faculties, with a number of 315 staff, teachers and researchers and 300 administrative staff (2007). The main contributions of University in local context are to be located in: educating skilled labor force for local administrations, commerce, services and industries; improving education and continuous education for practitioners, managers, namely in tourism-related issues research activities; partnership with different institutions and firms.

Faculties and Departments of Suceava University are: Economics and Public Administration; Educational Sciences; Electrical Engineering and Computer Science; Food Engineering; Forestry; History and Geography; Letters and Communication Sciences; Mechanical Engineering Mechatronics and Management; Physical Education and Sports, and departments: DPPD; International relations; DCTI; Distance learning; Quality management.

University Stefan cel Mare of Suceava has led or participated in over 80 projects that means a major role in delivering European Structural Funds Programmes. The University trough the Faculty of Economics and Public Administration initiated many projects financed by EU or by Ministry of Research and Education aiming to SME growth: Developing and implementation of the entrepreneurial behaviour of the students and graduate students from Bucovina area in mark et economy development context (CNCSIS 720, implementation period 2004-2006), Optimal strategies of adherence (and expansion) of the multinational companies to the efficiency of the technological transfer through the ISD chain, European Curriculum for Methodological Forming in

Environmental Education (Leonardo da Vinci, implementation period 2006 - 2007), INNO-Forest: Integrating innovation and entrepreneurship in higher forest ry education(implementation period 2005 - 2007), INNO-TOOLS Enterprise level Inno-tools – Innovation tool-box in European peripheral areas(implementation period 2007 - 2008), Leonardo vocational training according to EU standards for young graduates in the field of adult education - implementation period 2005-2006, Developing of skills and competences for trainers in the field of formal and informal entrepreneurship training programmes for local community , CII-SK-0044-01-0506 - Applied Economics and Management, CENTROS – Counselling Centre for the unemployed.

The important projects related to the Structural Found are the two project financed trough the Phare CBC Cross Border. The VISEC (Virtual Incubation of Student Entrepreneurs Cross Border) project will help to enable the border region between Romania and Ukraine to consider promoting entrepreneurship projects outside of formal school activity, as an educational leisure and as a learning activity for young people.

The VISEC project is a precursor for the establishment of business incubators in the region. With the VISEC project crucial insights will be gained in the need, willingness and possibilities for the establishment of business incubators in the cross-border region in the coming years. The primary target group of the VISEC project is young people from universities and schools of higher education who are finishing or just finished their studies. The secondary target group of the VISEC project is established SMEs who are looking for strong growth opportunities cross-border.

Another project - TESCA (Tourism Entrepreneurship in Suceava and Chernivtsy Area) project is a Human resources development project and will contribute to a steady upgrade of entrepreneurial skills and sustainable business cross border enterprise cooperation from the tourism field. Common Interests of the partners are: to develop an endogenous capacity to train, develop and coach local entrepreneurs; to proof that common activities can have direct economic and social benefits through tourism development; to demonstrate the capacities of the involved institutions to obtain similar results in other regions; to adopt an entrepreneurship development method which is both efficient and effective; to increase number of local/international high-tech companies in tourism field.

University Stefan cel Mare of Suceava are also involved with the North -East Regional Development Agency, in the project RIS DISCOVER NE. The project objective is to develop the first Regional Innovation Strategy in North -East Region Romania that will contribute to the valorisation of its economic potential, based on an innovation support system.

4. CONCLUSION

In European Union, each member state assumes the entire responsibility for the educational systems and for the content of educative programs, based on the subsidiary principle. The EU role is to contribute to the development of a qualitative education by encouraging the cooperation between member states and, if is necessary, by completing their actions for the porpoise of developing the European educational dimension, by favoring the mobility and by promoting the European cooperation between educational institutions. European Union has specific means for stimulation of cooperation in this field by commune actions such as: programs for communitarian actions (Socrates, Leonardo da Vinci), which are submissive to the co-decision procedure and to the communitarian juridical acts (recommendations, communications) etc.

In University of Suceava there are some projects will help to consider promoting entrepreneurship project outside of formal school activity as an educational leisure and as a learning activity for young people. Those projects are a precursor for the establishment of business incubators in the region. With those project crucial insights will be gained in the need, willingness and possibilities for the establishment of business incubators in the cross-border region in the coming years.

NOTES:

- (1) OECD Work on Education 2005 - 2006, www.oecd.org
- (2) A. Toffler, H. Toffler – *Revolutionary Wealth*, 2006; translated *Avu ia în mi care*, Editura ANTET, 2006
- (3) An Overview of Higher Education and GATS, www.acenet.edu
- (4) Report from Educational Council to the European Council, <http://ec.europa.eu>
- (5) http://ec.europa.eu/education/policies/III/life/what_isIII_en.html
- (6) European Commission's Annual Report, <http://ec.europa.eu/education/policies>
- (7) G. Popescu – *Economie europeană*, Editura Economică, București, 2007, pag. 179
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- (9) A. Toffler, H. Toffler – *Revolutionary Wealth*, 2006; translated *Avu ia în mi care*, Editura ANTET, 2006
- (10) Dates for Japan are for 2003 year
- (11) Science, Technology and Innovation in Europe, EUROSTAT Pocketbooks, 2007
- (12) <http://oberon.sourceoecd.org/v1=1075868/cl=21/nw=1/rpsv/factbook/07-01-01.htm>
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- [12] <http://oberon.sourceoecd.org/v1=1075868/cl=21/nw=1/rpsv/factbook/07-01-01.htm>