Reporting on intellectual capital: value driver in the Romanian knowledge based society

Marta - Christina Suciu, Alexandru Ghitiu-Bratescu, Luciana Piciorus, Cosmin Imbrisca

***Abstract*—**In the context of the knowledge-based society and creative economy, intellectual capital, creativity and innovation are key engines for development both at the macro and micro level for individuals, organizations, regions, communities of good practices. We increasingly live in an emergent knowledge & innovative-based economy, where changes are quickly and consistently challenging us. Intangible assets and mostly intellectual capital and knowledge produce the greatest value added. In addition in the context of the creative economy innovation are key drivers of long run sustainable competitive advantage.

The paper debates two main problems. First of all, it analyses the value of human capital, approached under three dimensions-quantitative, qualitative and structural, and investment in lifelong learning, as measured by the European Lifelong Learning Index (ELLI). Secondly, it debates the case of human capital investments in the Romanian society, evaluated through their impact, and correlated with the present educational policies. Also, the paper focuses on the European dimension, the impact of the Bologna Process and Lisbon Strategy on the Romanian education system, in the context of education capitalization process. The essential point here is that investing in people regards not only the investment in knowledge & skills but also the support for stimulating creativity and innovation. This holistic vision that supports also the idea of lifelong learning generates consistent value added and prosperity not from one day to the next but mostly on the long term. The performances regarding this special kind of investment is one of the best ways to increase labor productivity. Our analysis shows that in Romanian, despite the efforts made up to now, lifelong investments in education are still reduced from a quantitative point of view and not yet effective from a qualitative point of view.

This paper seeks to develop in Romania a framework of understanding the value of intellectual capital and the importance of the promotion of creativity and innovation for lifelong investing in education. We appreciate that in our country intellectual capital, intangible assets, creativity, innovation and lifelong investment in education are very important for both the academic and business communities.

***Keywords*—**intellectual capital, investment in education, knowledge-based society, lifelong learning.

I. Introduction

THE process of economic growth, crisis & development, stays on the foundation of each country's prosperity. Authors pay a special attention to economic growth & development because the general welfare of a society depends decisively on its level.

One of the most raised arguments that states economic growth and development theories at the basis of human resources management policies regards the role of intellectual capital, intangible assets, innovation, creativity and the investments in educating and training as the most important components for the national wealth. Often, governments have treated more harshly the formation of human capital than the formation of physical capital. The concept of human capital was originally defined by Gary S. Becker according to whom "it is an essential aspect of individuals in their role as producers of value in the economy is the sum of their capacity, experience and knowledge"[1].

As individuals, we develop from both a professional and personal point of view through life experiences, by training and education programs. Analyzed both from a qualitative and quantitative point of view intellectual capital largely determines our ability to contribute to the economy or our own gain.

While we continue to make progress in the era of the creative economy and knowledge-based economy, it becomes increasingly clear that lifelong learning is an important requirement for maintaining an edge in knowledge and skills growth. In fact, there are authors that refer to the knowledge-based economy as the "learning economy" [2]. Mere accumulation of data and knowledge without transfer and dissemination would create little impact on economic development.

The central priority of Lifelong Learning investments can contribute in a significant way to the consolidation of the role of education and vocational training in reaching the "Europe 2020" objective launched in 2010.

II. The Value of Intellectual Capital and Long Run Sustainable Competitive Advantage

The concept of human capital, we can find it used in its initial state in the classical economic school, at Adam Smith, who stated that "an individual for whom a lot of work and time has been spent for its training, must prove a superior level of qualification and dexterity, being able to be compared to any expensive but performance car" [3].

Also in the paper "Principles of the political economy" (1890), the representative of the neoclassical school, Alfred Marshall, considered that "the most valuable from all the capital is the one invested in the human being"[4].

Gary Becker, the Nobel Prize laureate and author of the paper "Human capital. A Theoretical and Empirical Analysis, with Special Reference to Education" (1993) is the one that deepen the problematic of intellectual capital and its role in the economic growth.

The International Federation of Accountants (IFAC) states that the following components are comprised in the human capital category: "know-how, vocational qualification, occupational assessments, entrepreneurial élan, innovativeness, proactive and reactive abilities, changeability, education, work-related knowledge, psychometric assessments, and work-related competencies" [5].

The reality of the current situation is that 60 to 70% of average spending of companies is on labor. Data collected by the Brookings Institute form a clear picture of the importance of intangible assets and intellectual capital. In 1982, tangible assets represented 62% of average market value of a company.

In 1992, this figure dropped to 38% and more recent studies of market positioning value of the tangible medium to low level of 10%. From this study it shows that a percentage of over 70% in 2006 is attributed to intangible assets.

Companies recognize the importance of investing in their employees now more than ever.

Companies are starting to understand the idea that in order to be in the top of the global economy they must put more interest on developing and retaining their valuable human resources.

Derek Stockley defines best the intellectual capital in our opinion as "the acknowledgement that people in organizations and businesses are an essential and important value which contributes to the development and growth in the same manner that tangible assets such as equipments and money do.[6] "

Collective attitudes, abilities and human competencies contribute to the performance of the organization and productivity. Any expense for training, development and health is an investment, not just a cost.

But the traditional accounting system is a major obstacle. The causes are firstly related to the fact that intellectual capital assets are classified as expenses, this affecting the liquidity level of the organization as it contributes to under-valuation.

The second aspect is concerning the accounting standards applied as certain nations allow only for a portion of the goodwill to be reported in the financial documents, while the goodwill is a fraction of intellectual capital. For example, International Accounting Standard no. 38 forbids recognition of the internally created goodwill and of training costs, these items being charged as expenses [7]. Therefore, this may offer an elucidation to the invisible equity that Sveiby mentioned in his paper "The "Invisible" Balance Sheet" [8].

Competition is so strong and change is so rapid, that any competitive advantage gained by introducing new processes or technologies may be for short term if competitors adapt the same technology. Also, competition imposes additional pressure, like the need for costs reduction, and eventually adapting new financial models in order to reflect knowledge value creation. For implementing the change their people must have the same or even better aptitudes and abilities. Consequently, competitive advantage stands for superior knowledge, well trained employees, new products and services, increased efficiency and making use of the latest technology available [9].

III. A STRONGER CORRELATION BETWEEN INTELLECTUAL CAPITAL AND ECONOMIC GROWTH

For the purpose of economic growth there has been resorted to new and new resources, decreasing the non-renewable ones and not reproducing at the optimum level the reproducible ones. The resources-needs problem characteristic of every economy is now tenser than ever before and cannot be solved anymore by appealing to existing economic models, because they have proved to not have results. The necessity of changing the model appears with the human component in the center and not people-number but people-value.

In the process of economic growth the human factor intervenes by increasing the volume of performed work and its level of quality at macroeconomic level synthetically expressed by work productivity.

Each factor of economic growth and development has to be approached under three dimensions: quantitative, qualitative and structural.

Under the quantitative aspect, the human factor materializes in the volume of performed work by the active population within the actual work time. The action of the human factor in the process of economic growth is correlated with the evolution of the active available population's occupational level.

Involvement of education in economic growth occurs through two mechanisms:

- First and best known is the creation of new knowledge. Better educated individuals will later become scientists and investors who will work to help increase the stock of human intelligence through the development of new processes and technologies. Also, knowledge is referred to as a two-dimension ontological concept: individual and collective. Therefore, organizations, perceived as knowledge units, will concentrate their efforts to benefit from knowledge creation at both levels, according to their activity scale [10].
- The second mechanism, through which education affects economic growth, is namely the transfer of knowledge and information. Schools provide the education necessary to understand new information, and in this respect we believe that Romania is among the leading countries. Although the growth of work demand is being associated with economic growth, there are some different opinions, among specialists, in what

concerns the nature of this dependence.

Factors such as intellectual capital, creativity and innovation can make a substantial difference.

Although theoretically the increase of the occupational rate by creating new work places, favors economic growth, there are opinions according to which the extending of occupation is a consequence not a prerequisite of the economic growth process, and is due to the stimulation effect that the increase in the GDP would have on investments.

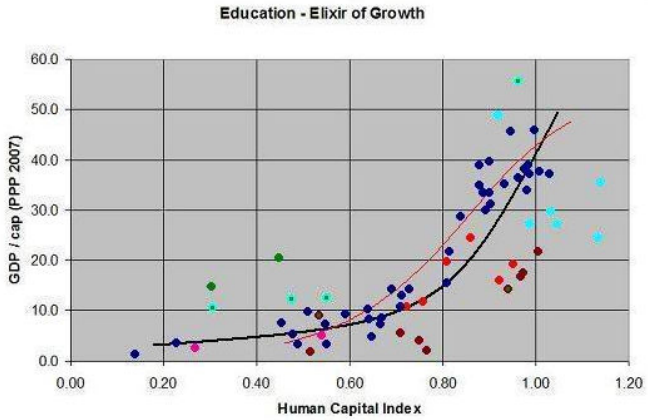

Fig. 1. Education correlation with economic growth

Source: Karlin Anatoly, Education as the Elixir of Growth, 2008, [11]

In the graphic above, Fig. 1 there have been collected educational statistics on 65 countries and used a formula to work out a Human Capital Index (HCI), relying on three main stats – the literacy rate, PISA/TIMSS/PIRLS performance and tertiary attainment. Then this is compared with their purchasing power GDP per capita and its average growth rate for 1997-2007.

We can see from the chart how closely educational capital and wealth correlate in 2007. We observe an inverse square relationship or possibly a kind of S-curve with two inflection points.

If investments made in material resources have as output the creation and development of the tangible capital, the investments made in the growth, education and vocational training of the human resources generates what is known as human capital as one of the most important part of the intellectual capital.

Structurally, the human capital is represented by professional knowledge, skills, abilities and health which can lead any person to increase its creating and innovating capacity and implicitly the incomes expected to be obtained in the future, or as a capacity that individuals have to efficiently produce services and products.

But human capital is also about the qualitative dimension of skills, abilities, health state. In this case, the level of training or professional performance can be used as a reliable indicator.

However, there are few studies related to the education qualitative indicators as in connection to economic growth. From Lucas (1988), Barro (1991) and Mankiw et al. (1992), to Lee and Lee (1995), Hanushek and Kimko (2000), who used scores obtained from students participating in international evaluations in science and mathematics, to Barro (2001), who started from the same data as the previous study, but focusing on skills indicators, namely mathematics, sciences and reading, the studies had similar conclusions. Despite the difficulties in determining the education-economic growth correlation, the qualitative dimension measurement provides more relevant information than the quantitative one [12].

Specialists who approach the issue of economic growth and development, agree with the idea that once a certain level of intellectual capital accumulation is reached, it becomes productive, positively correlating with growth and occupational rates in the frame of economic growth models.

Gary Becker demonstrates that investment in human capital, meaning in education and training, are generating the highest growths in work productivity and therefore into an important contribution to increasing GNP. The economic analyses made are highlighting the contribution of scientific and technical knowledge expansion to the increase in work productivity.

This compels us to draw a dividing line between empirical models of growth and labor occupation, promoted by the IMF and World Bank, which recommends practicing austerity budgets in unproductive public domains and other reference models, which recommend increasing government spending for training and human capital accumulation.

Many people say that in Romania we have many vicious circles. If we can turn these vicious circles into virtuous circles, we can transform chaos into what we call a whole according to the vision of complexity and holistic approaches. Each seeks to resolve their own affairs and thus create tension and as a result, they all lose [13].

IV. CAPITALIZATION ON LIFELONG LEARNING AND VOCATIONAL TRAINING CAN MAKE A DIFFERENCE

Lifelong learning is accepted in the context of national and international policies as being a truth, a necessary response to the increased level of change, economic and social pressures and the uncertainty of the future. It is the process of constantly renewing, improving of a person's general knowledge and qualifications' level through incessant study throughout a person's life.

This issue is strongly sustained by United Nations Educational, Scientific and Cultural Organization (UNESCO) and also by the European Commission. There is a reason why continuous learning is being promoted as being the solution inside a new rational policy of capitalism, more specifically the exclusion of those who do not conform to the next phase of development. The European Council Conclusions of March 2008 reiterates the need for "investing more and more effectively in intellectual capital and creativity throughout people's lives" [14] as crucial conditions for Europe's success

in a globalised world (European Council, 2008a).

It is important to specify the fact that continuous learning has appeared as a significant policy especially in countries that are part of the Organization for Economic Cooperation and Development (OECD), combining formal, informal and non-formal learning, as well as for those members of the European Union which in 2006 through the European Commission's Communication on Adult Learning "It is Never too Late to Learn", underlines its key-elements: increased participation by eliminating barriers, higher quality of adult education suppliers, systematizing assessment and validation processes, easier funding and proper monitoring activities[15]. This is a crucial matter in a moment of rapid economic and social changes, of insecurities and uncertainties, therefore contributing to creating benefits for the groups mostly affected.

Changes are all around us, products are changing, consumers, processes and policies are changing, we are part of a new team, we are penetrating new markets and establishing new purposes.

In order to face this change, we must have the will and power to change ourselves, and lifelong learning and vocational training are an essential component in developing this ability.

Lifelong learning is not only a matter of education and training; it becomes more and more a fundamental principal of an individual's active participation in society, during its entire life span. Supporting new methods of teaching and promoting a new life style according to which people will learn all their life may also contribute to stimulate people to manifest in a creative way. That can make the difference mostly in the context of a creative & knowledge-based economy.

Lifelong learning pursues the transformation of the present system of professional training institutions, expanding it with the necessary components for the achievement of professional training in advance the labor force for activities that use new technologies and require creativity, innovation and high professionalism.

While there are significant differences in individuals' rates of return from education, there is a strong positive relationship generally between educational attainment and average earnings (and by implication, productivity).

Lifelong learning is not approached in a coherent and comprehensive manner at the level of educational system and policies. This limits the coherence and flexibility of individual routes on lifelong learning.

The OECD results in its Investment Reform Index 2010, Monitoring Policies and Institutions for direct investment in South-East Europe provide a detailed assessment and benchmarking of policy settings and institutional conditions that shape the environment for direct investment. This study is an update to the initial one made in 2006, showing the progress made since than for countries in South-East. A score of 1 represents a situation of minimal policy development. Higher scores represent progressively superior policy or institutional conditions. A score of 5 is equivalent to best practice in the OECD area.

At human capital dimension, Romania has a high score reaching 4.25 the best score in this category, coming closely are Bulgaria with 3.56 and the Former Yugoslav Republic of Macedonia with 3.50.

Romania has a score of 5 in the sub dimension of Vocational education and training which makes it the most capable from the 10 studied countries. This sub dimension's score is formed by calculating the level of the consultative process in the VET system, and the actual development of the VET system.

At developing the VET system Romania scored 5 points and also 5 points at the consultative process in the VET system those being the qualitative factors for analyze.

At the Continuing education and training sub dimension Romania also has the highest score of 4 points the group of countries that was analyzed.

This score shows that our country's strategy implementation occurs with a quite high quality of program delivery.

Information gathered from consultation processes and skills survey evidence is systematically used to improve policy, and incentives for employer participation are deemed by employer representatives.

However, in the context previously mentioned, of creative & knowledge-based economy, we must also notify that innovation occupies in the Romanian business environment a stronger position from year to year. A research study taken in 2009 at the SMEs' level indicates that their innovation endeavors, which have a major contribution to national employment level (they represent almost 99% of the total number of companies in the Romanian economy), were primarily focused on new products (37.49% vs. 34.87% in 2008), technologies (28.75% vs. 26.99 % in 2008), managerial and marketing approaches in November (24.02% vs. 15.92% in 2008), as well as on training of human resources (13, 47% to 13.46% in 2008) [16].

Overall the stock of skills in South-East European countries is low comparing it with the OECD countries average. In Romania the private business sector is in need for more employees with practical and technical skills. The low level of skills also affects the ability for Romania to design and implement public policy. The Romanian government must focus on skills development urgently, given the likely increase in demand for skills and the country's strategic need to reduce vulnerability to low wage competition from other countries. Considering this, a reform of education by taking in account the need for economic growth and stability, must ensure non-discriminatory access to school, higher quality and accounting for of all lifelong education dimensions- formal, informal and non-formal [17].

The European Lifelong Learning Index (ELLI) is an annual measure of Europe's "state of play" of learning throughout the different stages of life from "cradle to grave" and across the different learning environments of school, community, work

and home life.

The ELLI Index measures learning in four different domains taken from the UNESCO framework that include learning to know, learning to do, learning to live together and learning to be.

At the Learning to know dimension Romania scored 11.39 being way below the EU average of 45.50 as shown in Fig. 2.

Also taking the last place in what concerns investment, this dimension contains indicators on total expenditure on education and training; the range of learning opportunities for formal education which are currently being measured are pre-school, school, higher education and adult education institutions. This dimension also measures learning outcomes from traditional core disciplines such as mathematics, science and reading in secondary school, as well as completion and attainment rates for post-secondary education. Bulgaria is situated in front of it with a rather big difference, with a score of 19.80.

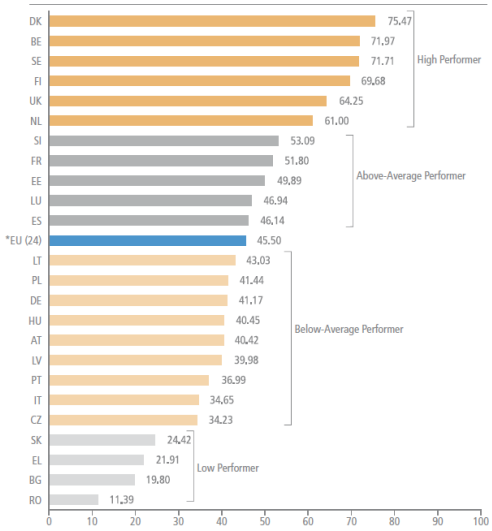

Fig. 2. Romania's position at the Learning to Know dimension

Source: Bryony Hoskins, Fernando Cartwright, "European Lifelong Learning Indicators. Making Lifelong Learning Tangible", 2010, published by Bertelsmann Stiftung, pp. 4, [20]

From the study it can be observed that at the dimension of Learning to Do - vocational learning, Romania is positioned at the 23 position with a score of 23.82 as shown in Fig.3.

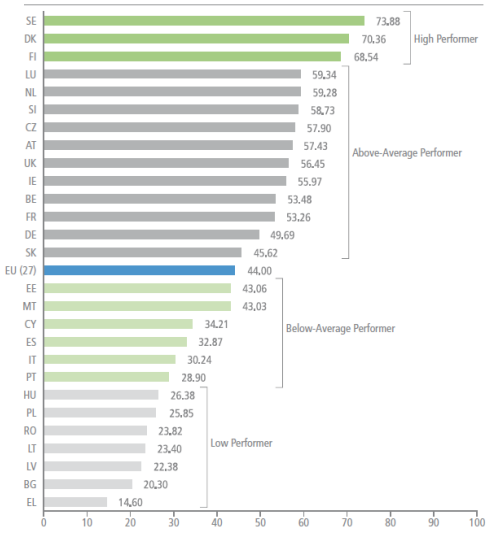

Fig. 3. Romania's position at the Learning to Do dimension

Source: Bryony Hoskins, Fernando Cartwright, "European Lifelong Learning Indicators. Making Lifelong Learning Tangible", 2010, published by Bertelsmann Stiftung, pp.43, [20]

This puts Romania in front of other countries like Bulgaria but extremely low in comparison with the EU average of 44.00. Therefore, Romania is improving but still lacking a lot at participation rates, learning opportunities and investment (by employers, government and individuals) in job-related skills.

These skills can improve economic performance and social inclusion through increasing job prospects and career opportunities for the individual, and augment competitiveness of the enterprise, region or country, explaining the hard economic times through which Romania is passing. This dimension indicates that adults' continual professional development at their place of work through formal, non-formal and informal learning opportunities is low.

If we analyze the next dimension comprised in the ELLI meaning the Learning to Live Together, it can be seen that Romania is in the Low Performer class situated on the 24 position with a score of 20.14 as shown in Fig. 4. The only country with a lower score is Hungary with 17.22.

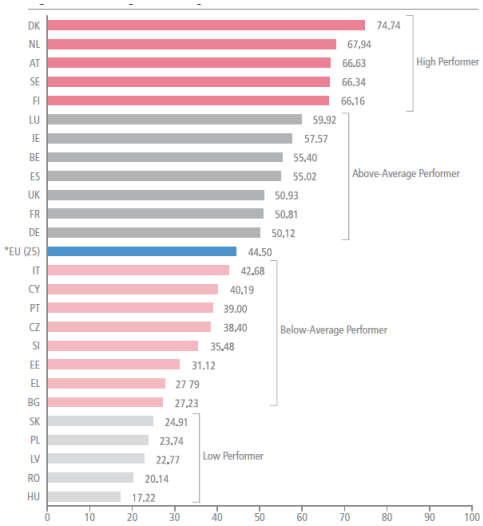

Fig. 4. Romania's position at the Learning to Live Together dimension

Source: Bryony Hoskins, Fernando Cartwright, "European Lifelong Learning Indicators. Making Lifelong Learning Tangible", 2010, published by Bertelsmann Stiftung, pp.45, [20]

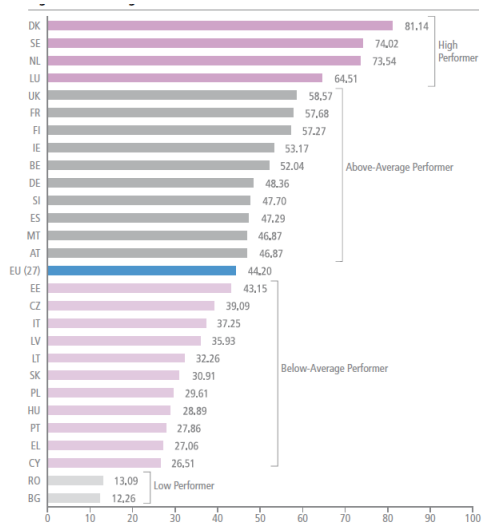

Fig. 5. Romania's position at the Learning to Be dimension

Source: Bryony Hoskins, Fernando Cartwright, "European Lifelong Learning Indicators. Making Lifelong Learning Tangible", 2010, published by Bertelsmann Stiftung, pp.47, [20]

Also, at this dimension our country is far from the EU average of 44.50. Denmark takes the overall lead for the learning to live together results, together with other high performances from the other Nordic countries, the Netherlands and Austria. The Nordic countries also take the top positions for most of the individual indicators in this dimension, but do slightly less well in the areas of engagement in civil society and political participation, where the Netherlands and particularly Austria show excellent results

This dimension shows that Romania has real problems with individual-level attitudes and dispositions which promote social cohesion such as trust, intercultural competence and political and community engagement. Also our country has serious problems with learning the values of democracy, tolerance and trust and the skills and interest to be able to engage other people. These competences are being learned throughout life.

At the Learning to Be dimension Romania (also called learning as personal growth) is also found in the Low Performer section, on the 26 position from the 27 countries analyzed with a score of 13.09 as shown in Fig. 5, which is far from the EU average of 44.20. The only country with a lower score than Romania is Bulgaria with 12.26. From the results in this dimension we can draw the conclusion that our country lacks in self-directed learning and individuals' efforts and investment in learning.

Furthermore, except the information provided by figures, at the level of policy-making a greater coherence is required between policies in education, initial vocational training and continuing vocational training. Validating learning acquisitions we may obtain a better correlation between education and initial vocational training and continuing vocational training (CVT), improved definition and transparency of vocational qualifications. These are issues addressed by developing and implementing the National Qualifications Framework in Romania together with the required methodology, as designed by the National Agency for Qualification in Higher Education and Partnership with Economic and Social Environment in collaboration with the higher education institutions.

The importance of its existence is mostly related to ensuring a proper mechanism for validating the skills gained through informal and non-formal learning in the case of CVT, ensuring at the same time a link with the European Qualifications Framework, and transforming an important institution for Romanian lifelong education, the National Adult Training Board as the National Authority for Qualifications – NAQ/NATB, in June 2004.

There are weak points that need to be worked on, such as

the little experience of universities in guaranteeing transparency of the educational process, difficulties in obtaining legislative support and low level of employers' awareness of NQF role [18].

Therefore, theoretical and practical adjustments have to be enforced in order to level education, training and skills, on one hand, and competencies' demand on the labor market on the other hand.

V. Investment in Human Capital and Educational Policies

Empirical studies referring to investment in human capital, applied in certain countries with a high demographic rate in Central and Eastern Europe highlight the fact that financial efforts risk to become vulnerable in comparison with the results obtained. This in our opinion is happening because of 3 reasons:

1) Reduced value of investments in intellectual capital per schooled person is likely to lead to frustration rather than positive effects on the labor market;
2) The burden of increased taxation in social and economic environments in which most people have a lower living standard, and in business environments where labor productivity is low, is likely to inhibit accumulation and reinvestment of profits;
3) At the aggregate level, targeting investments in favor of intellectual capital and education would entail an imbalance of balance between structural and qualitative accumulation of intellectual capital, especially on short term, which creates new distortions in the labor market, involving new spending for retraining of labor.

Another controversial issue regarding investment in human capital and education is the multiplication in time of training and education costs.

In this sense, analytical studies undertaken in different economic areas reveal that applying the input-output method, increasing labor input cost factor is not able to drive a similar increase in output value or a change in its structural composition, which would justify the increased investment effort. Also, there are some effects of aggregation, vicious, on investments in education, training and retraining of workers. Overall, in these conditions, there is a phenomenon of "depreciation" of qualifications, which is propagated from lower to the higher levels of education system and for the same social status required for filling a necessary function, they are necessary with time higher and higher individual and social costs. The overall result of this is materializing in a higher skilled workforce.

The problem of investment in human capital whose fruits are "collected" on medium and long term concerns today all countries competing for progress and prosperity, but especially emergent countries like Romania. Investment in human capital aims at on one hand, for training and professional – scientific preparation of available human resources, and on the other hand, adapting human resources to the structural changes of economy imposed by technical-scientific progress, based on efficiency criteria.

Even throughout global economic crisis, such today, when the IMF imposes a severe fiscal adjustment program to Romania, investments in the learning system and human capital accumulation contribute, according to several studies, to economic progress, based on increased labor productivity.

Romania is part of the countries that are participating in the Lifelong Learning Program for the period 2008-2010. Each component of the program will give priority to the actions "supporting development of national strategies for lifelong learning in the participating countries and strengthen cooperation between different parts of the national education and training system, reinforce the lifelong learning process as a continuum, and support acquisition of key competences" [19].

Educational policies broadly represent the directions of action in education that public authorities choose as response to a specific problem or a series of interconnected problems. *Educational policies* analysis takes into account the major decisions with a direct impact on actors, supply, structure and the way in which the education system is functioning. Policies argue that in order to remain competitive in the global markets and societies, economies should focus on bringing in front continuous learning as a capacity and practice of individuals, institutions and educational systems. Policies highlight that if nations do not take part in the race for a knowledge-based society than everything can be lost. Therefore lifelong learning is promoted as a policy of support for change within the contemporary society and that is why it requires our full attention. Under the Union Treaty, education is the task and in the attribution of Member States. It is not the subject of a common policy, with the exception of some competences related to freedom of movement included in Art. 149-150 from the Union Treaty [21]. On this basis, education and culture remain attributes of national state.

In the process of education capitalization, three milestones can be identified, namely the introduction of European dimension, the Bologna Process and Lisbon Strategy.

The first, the European dimension, is closely connected to the European education system. Despite having old routes in the 17-18th centuries German absolutist monarchs' schools, the national educational system formed completely long after the 1st World War. Therefore, studies proved strong similar characteristics between countries that allowed using the concept of European education system. This is why, together with the free circulation o capital and people, within a knowledge based European economy, it was compelling to make a harmonization effort with regard to skills, qualifications, competencies. Herein we mention the European Qualification Framework, Europass and the European System of Transferable Credits (ESTC).

The Lisbon Strategy was taken one step further through the Bologna Declaration which aimed for an ample reformation process in order to align to European standards.

Though previous legislation was already enforced when the Bologna process had been initialized, in 1999, legislative improvements have been accomplished since: the Law no. 288/2004 regarding the organization of the higher education on 3 study cycles (Bachelor – 3/4 years, Masters – 1/2 years, PhD – 3 years), O.M no. 3235/2005 regarding the setting up of "career counseling and orientation centers'', O.M no. 3617/2005 regarding the general application of ECTS, O.M. no. 3714/2005 regarding the introduction of the Diploma Supplement for the certification of the graduation of a university study cycle, both in Romanian and English, G.D. no.567/2005 regarding the organization and the development of university PhD studies. G.D. no. 404/2006 regarding the organization of Masters studies and G.D. no. 1175/2006 regarding the organization of Bachelor university studies on study fields, in accordance with the Bologna Process principles and also the approval of the 15 general study fields. Also, it should be mentioned law 87/2006, by means of which GO no. 75/2005 was adopted with reference to assurance of the quality of education and the Romanian Agency for Quality Assurance in Higher Education was established [22].

Each one of them has significance for the Romanian education system as well as the Copenhagen Process for enhanced European co-operation in Vocational Education and Training and other initiatives under the European Research Area.

Although not directly related to European citizenship, these moments are important for the formation of European awareness through education and corresponding political identity.

VI. CONCLUSIONS AND RECOMMENDATIONS

We consider that today in Romania a notable shift is taking place towards more integrated policies that combine social and cultural objectives with rational economic arguments for supporting the importance of lifelong learning investment as a key engine for intellectual capital, creativity and innovation development. New ideas started to appear on the balance of rights and responsibilities of citizens and public authorities. More people have become more confident in claiming different identities and ways of life. Supporting diversity and tolerance woks also in the spirit of the creative economy and knowledge based society. There is now widespread demand for decision making as close as possible to people's lives and with their participation.

As one of the conclusions for this paper is the direct relationship between human capital and firm productivity: employees with high level of training are characterized by a better health status and are the direct source of innovation, creativity, and therefore competitiveness. Investments in human capital benefits both individuals and society through increased productivity and better organization of economic activity.

Although not yet developed comprehensive and coherent strategies by most Member States, all recognize that acting together in a variety of partnerships is essential to provide lifelong learning in practice. These partnerships include cooperation among ministries and public authorities to develop coherent policies. These policies systematically integrate its social partners in developing and implementing initiatives consistent with public, private initiatives.

Partnerships are developed mainly through the active involvement of local and regional bodies and civil society organizations that provide services that are closer to citizens and are better tailored to the communities.

As for youth programs, education and training of the European Community, and they have proved their worth in supporting trans-national cooperation, partnerships and exchanges to develop a better way of action. In this area of activity, one example is the Erasmus programme which brought mobility for more than 1.8 million students since its opening in 1987, representing 4% of the total number of students, and having as a long run objective a level of 20% by 2020. Also, Erasmus Mundus involved 270 European universities in creating joint master courses, through around 30 educational partnerships, while the new settled goals will include PhD studies cooperation [22]. Nevertheless, researchers can benefit from the Marie Curie Actions and EURAXESS, a portal offering information on available jobs, rights and services.

We have identified a group of discrepancies between human capital formation, education, skills formation and the other systems of the economy:

- in relation to quality education and level of skills, the offer is too low and demand is too high;
- social needs for human resources quality are not satisfied with by the educational product;
- methods and educational programs are not enough tailored to the needs of society;
- the dynamics of the knowledge society vs. inertia of organizational structures of education systems.

Professional registration on a particular route is not only a result of individual efforts, but also the concern of society organizations, which should apply in this sense adaptation and effective training programs, to find mechanisms to maintain quality and competence and motivation for further investment in education over the entire active life.

Nowadays in Romania since investment in intellectual capital becomes urgent, some stages need to be passed not only conceptual, but also in mentality. The first is the understanding that without a rapid and profound progress in education, we cannot expect growth or living standards increase, no matter how much funds the European Union or any international institution would allocate. The second step is to change attitudes of the decision making staff involved in the management, reorganization and reform of the education system taking into account the whole educational system.

The third is changing the mentality of country's citizens, businesses, parents, children, in understanding that investment in education is the most important objective for the future.

Intellectual capital development, creativity and innovation are important engines for a long-run sustainable and competitive development, both at social, local communities and individual levels.

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Belgium, 2009, [Online]. pp. 12-13, Available: http://issuu.com/agence/docs/eu-contribution-bologna-process.

Marta-Christina Suciu was born in Cateasca, Jud. Arges, Romania, in 1958. Mrs. Suciu graduated from the Faculty of Cybernetics, Academy of Economic Studies, Bucharest, Romania with a major in Informatics and Economy. In 1995 Mrs. Suciu completed the PhD doctoral research in the area of Economics in 1995. She benefits also on many training and mobility programs delivered by some famous institutions such as: Brunel University, UK (2008); London School of Economics and Political Science, UK (2007); Limerick University (Ireland, 2008); Brighton University UK (2007), Leeds Career Centre, UK (2002); Nottingham Trent University, UK (1997); National Council on Economic Education, USA (1997, 1998), Durham University Business School, United Kingdom; 1996; etc.

Over the years she has held a series of teaching positions in the Academy of Economic Studies Bucharest, Romania, starting as LECTURER in 1993 and becoming a FULL PROFESSOR in 2000 and a PHD SUPERVISOR in 2002. She had also held a series of research positions in *Romanian Academy, National Economics Research Institute; Industrial Economics Research Institute*; Bucharest, Romania starting as a JUNIOR RESEARCHER in 1983 and becoming a SENIOR RESEARCHER in 1990. In 1996 she was a VISITING PROFESSOR on MIT Cairo University, Egypt. She is the author of 9 books and over 100 scientific articles which have been presented both in Romania as well as abroad. Her main topics of interest are: new economics, knowledge - based society, creative economy, intellectual capital, investing in people and skills, intercultural effectiveness and intercultural dialogue.

Dr. Suciu is a member of a number of different professional associations and organizations in Romania and abroad of which we can mention: EARLI,, ERSA, RSA, AOSR, ARSR, CREE, AGER and many others.

Alexandru Ghitiu Bratescu was born in Bucharest, Romania, in 1985. Mr. Ghitiu Bratescu graduated from the Faculty of Business Administration in Foreign Languages, Academy of Economic Studies, Bucharest, Romania in 2008. Mr Ghitiu Bratescu is currently attending a PhD program in Economics at the Academy of Economic Studies, Bucharest since 2008

His PhD dissertation topic is focusing on intellectual capital and intangible assets.

Luciana Piciorus was born in Bucharest, Romania, in 1985. Ms. Piciorus graduated from the Faculty of Business Administration in Foreign Languages, Academy of Economic Studies, Bucharest, Romania in 2008. After two years work experience, Ms. Piciorus is currently attending a PhD program in economics at the Academy of Economic Studies, Bucharest.

Since 2008 she has been working as a TRAINER IN BUSINESS COMMUNICATION, and collaborating with an agency of the Ministry of Culture and National Patrimony of Romania. She is the author of one book on organizational communication and articles. Her present interest is focusing on intellectual capital and evaluation methods.

Imbrisca Cosmin-Ionut was born in Bucharest, Romania, in 1988. Mr. Imbrisca graduated with a Bachelor in Economics from the Faculty of Business Administration, Academy of Economic Studies, Bucharest, Romania in 2008 majoring in Business Administration.

In 2007 he participated in an internship organized by Asiban. He is currently attending a Master in Business Administration organized by the Faculty of Business Administration, Academy of Economic Studies, Bucharest, Romania. He has also participated in conferences and wrote articles focusing on intellectual capital. The research area he is mostly interested in is intellectual capital and biodiversity.