## The Role of Education and Research in National Competitive Strategy Modern Benchmarking Approach

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Recently Georgian society has demonstrated an increased awareness of higher education reform which has become a widely debated issue. This increased awareness has been translated into certain policy and legislative changes which is required to tackle the specific aspects of university life in a more effective way.

Georgian higher education system and science confront the task in engaging professional administrators and distinguished scientists with outstanding performance on both domestic and global arena. They need to be capable of taking their responsibilities productively according to the modern western standards. One can maintain that in recent years the Georgian higher education system has been one of the most dynamic social sectors, unequivocally expressing its intentions and determinations to undertake drastic reform in all spheres of academic life. Like all other social institutions in Georgia, the universities suffered greatly due to the fact that the managerial structures were and some of them are still marked by bureaucracy and corruption. Moreover, young talented experts and professionals who become distinguished internationally by their outstanding performance are deprived of opportunities and motivation to realize their skills and knowledge in domestic university environment, because merit-based principles are ignored.

From our point of view, the main reason of why the quality and relevance of both undergraduate and postgraduate education in some universities fails to be competitive is that administration lacks competence, strategic planning and decision-making skills, modern analytical vision, transparency and accountability. Also, professors involved in university activities are those who lack adequate research background and resources, international affiliation and recognition, curricular resources, innovation skills and potential. Vast majority of Georgian students do not have the access to the modern syllabi, relevant literature in native language, skilled and qualified lecturers, and consequently, young generation lack the opportunity to be competitive for meeting the needs of a highly demanding and diversified job markets.

In our presentation we intend to explore the modern benchmarking approaches to policy aspects of higher education reform and their role in national competitive strategy and discuss the ways and means of the implementation of the drastic changes in terms of the critical issues of knowledge management, strategic planning, competence, meritocracy, and accreditation policies in higher education system of Georgia.

Key Words: Young Talented Experts; International Affiliation; Lack of the Opportunities.

Recently, Georgian society has demonstrated an increased awareness of higher education reform, which has become a widely debated issue. This increased awareness has been translated into certain policy and legislative changes, which are required to tackle the specific aspects of university life in a more effective way.

The EU has created the model of how to cultivate innovation through quality education connected with research. If Georgia is to sustain progress in terms of European Neighborhood Policy and develop its capacity for innovation and competitiveness in an information-based economy, the country must be prepared to renew its national commitment to quality education at every level, and to reinforce the values of life-long learning.

Education institutions and think-tanks are acquiring increasing importance as an instrument of economic, social, and cultural development at both the regional and national levels, and also as a means of bringing about change in the community in which the relationship between education, science and business is receiving increased attention. Produced by technological progress, the universities need to redefine their objectives, their roles, and their functions. Educational systems in

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general need to become much more relevant so as to be in perfect harmony with their local, national, and international environments.

Attention has been concentrated on inter-correlation among science, higher education institutions and business, and their involvement in promoting sustainable development of human resources and human capital, in order to increase innovative potential in university activities through assisting in development of curricular resources, research and teaching methodologies.

Industries compete on innovation to increase and sustain competitiveness, and universities are seen as a key source of innovative capacity. In this respect, the focus of economic policy has shifted from macroeconomic stabilization and market opening to upgrading the microeconomic business environment, of which universities play a key part. The process of economic policy is opening up beyond government to include companies, universities, and research institutions that all have information and the ability to act on barriers to innovation and productivity.

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The Lisbon European Council rightly recognized that Europe's future economic development would depend on its ability to create and grow high value, innovative and researchbased sectors capable of competing with the best in the world. The evidence is overwhelming that the higher research and development expenditure, the higher subsequent productivity growth. One of the preconditions for any increase in productivity growth is to raise research and development spending. Studies demonstrate that up to 40 % of labour productivity growth in Europe is generated by research and development spending, and that there are powerful spillover effects into other areas of the economy, depending on the way in which the money is spent.

One of the most disappointing aspects of the existing situation in Georgia is that the importance of research and development remains so little understood, and that so little progress has been made in this respect. However, the knowledge society is a larger concept than just an increased commitment to research and development. It covers every aspect of the contemporary economy, where knowledge is at the heart of value added — from high-technology manufacturing and through knowledge intensive services to the overtly creative industries. Georgia can thus build on its generally strong commitment to create a knowledge society to create and sustain competitive strategy. Value is being created less in the simple transformation of inputs into outputs, but more in fundamentally enlisting the new capacity and competences to meet individualized and complex customer needs — whether business-to-business or business-to consumer relationships.

Georgia needs to dramatically improve its attractiveness to researchers, as too many young scientists continue to leave the country on graduating, notably for the US or Europe. The Georgian government should call for making the country more attractive for its best brains; promoting new technologies and innovations. Further development of a system of mutual validation of national quality assurance and accreditation processes would be an important step in the right direction. Obstacles still exist related to social security entitlements and the recognition of qualifications. In order to increase attractiveness, there are also financial questions requiring attention. The Government needs to urgently address the problem of funding for universities. If Georgia wants to attract more of the best researchers, the question of improving their research environment and remuneration needs to be addressed now. Creative interaction between universities, scientists and researchers on the one hand, and industry and commerce on the other, which drives technology transfer and innovation, is necessarily rooted in the close physical location of universities and companies.

There is already ample evidence around the world that high-technology clusters are built on this interaction, but 'ideopolises' — for example, Helsinki, Munich and Cambridge — go further. They have an array of other supporting factors — notably a sophisticated communications and transport infrastructure, financial institutions willing to provide the necessary risk capital to

entrepreneurs and specialists in technology transfer, supportive public authorities that facilitate the network structures driving creative interaction — and are attractive environments for knowledge workers. 'Ideopolises' are emerging as the cities at the heart of dynamic, high-growth knowledge-based regions.

If Georgia is to compete in the global knowledge society, it must also invest more in its most precious asset — its people. The productivity and competitiveness of Georgia's economy are directly dependent on a well educated, skilled and adaptable human resources that is able to embrace change. Yet at present, far from enough is being done in Georgia to equip people with the tools they need to adapt to an evolving labour market, and this applies to high- and low-skilled positions, and to both manufacturing and services. Nor is anything like enough being done to eliminate the brain-drain process.

To equip Georgia with the highly educated, creative and mobile workforce it needs, higher education and training systems must be improved so that enough young people are graduating with the appropriate skills to obtain jobs in dynamic, high-value and niche sectors. Universities must devise ambitious policies to raise educational levels, to make lifelong learning schemes available to all — and all must be encouraged to take part in them. The potentially devastating consequences of the ageing population means that boosting participation of older workers in the labour market is of fundamental importance. Therefore, lifelong learning is not a luxury, it is a necessity — for if all people are to be able to remain active, they need to be equipped with skills that match the requirements of the knowledge society.

All actors — public authorities, individuals and businesses — must accept their share of the responsibility for raising the levels and efficiency of investment in human capital. Incentives are needed to boost investment in training within individual companies and across sectors in order to support employers in providing suitable access to learning.

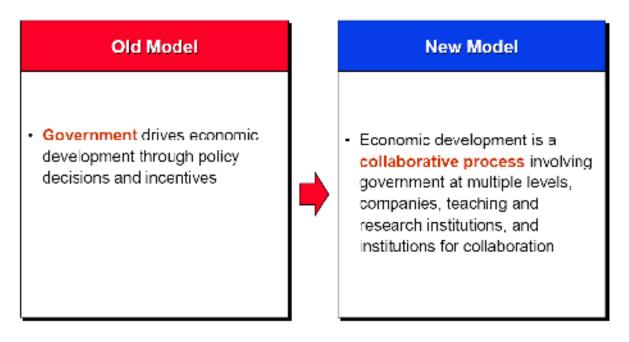
The capacity to translate knowledge into high-value, even unique, products and services has emerged as the nation's most important competitive asset. Assessing the future prospects of Georgia also requires an understanding of the changing dimensions of global competition. Innovation played a pivotal role in the unprecedented economic prosperity of many industrial societies, and we need to make a comparative analysis based on the modern benchmarking practices to define the way for success and prosperity.

The availability of technical talent is critical in gauging future competitiveness. A welleducated and technically-trained workforce is essential to a nation's competitiveness in two key ways. First, it enables a country to shift more of its economic activity into higher technology and more productive activities that support higher wages. Second, an educated workforce is necessary to retain domestic investment and attract multinational investment. Robust increases in research talent highlight a growing commitment to boost innovation capacity and economic growth in other countries.

As it was mentioned above, the priorities for sustaining Georgian economic growth and competitiveness center on strengthening the nation's innovative capacity and skills of the human resources. The erosion in the nation's basic research investments, pool of scientists and engineers, and research facilities must be reversed to create competitiveness in innovation.

The real increases in national research and development investment have all come from industry, focused on near-term product development. The nation's ability to commercialize innovation—and future productivity growth—rests on the skills of its human resources. But, the bar for skills is rising—and demand for higher skills is outstripping supply.

## Shifting Responsibilities for Economic Development



Higher skills, which enable higher productivity, are increasingly necessary to commercialize innovation and justify higher wages. The realities of technological change and globalization create an immediate and compelling economic stake in strengthening the skills of the Georgian human resources.

## **Cluster Development Strategy**

Although national boundaries matter less in some respects in a global economy, the clusters of firms and industries concentrated at the regional level matter more. Clusters develop where a critical mass of companies, suppliers, service providers and supporting institutions in a particular field (e.g. research institutions, trade associations, technical or vocational schools) are concentrated geographically. Although some have argued that Internet-facilitated transactions make geography irrelevant, the latest research data yield precisely the opposite conclusion. The locus of innovative activity that supports national prosperity is increasingly tied to geographic location. Industry clusters innovate more rapidly because they facilitate access to information, specialized skills and business support. The strong competitive pressures on the ground, not hundreds or thousands of miles away, increase a cluster firm's motivation and ability to innovate. Proximity to universities helps to refine the research agenda, train new talent and enable faster deployment of new knowledge. Regional public-private networks improve the physical and policy environment for cluster innovation. According to the available data, average wages in regional clusters that trade nationally and internationally are significantly higher, and that regions with strong clusters have higher rates of innovation, productivity growth and new business formation. Our concept suggests that the basis of competition between regions is changing. Competition is based on building clusters of regional assets based on knowledge and innovation, and not on attracting investment through large tax incentives. Building clusters requires a focus on local strengths: research capabilities, the talent pool of skilled workers in specialized areas and the regional networks that connect business with local innovation assets.

Strengthening regional clusters of innovation will require the nation to:

- ! Expand the focus of competitiveness and innovation policy to the regional level
- ! Support regional leadership initiatives and organizations that enhance and mobilize cluster assets

- ! Identify best practices in cluster development
- ! Develop special programs of education for public servants
- ! Reform science management system through appropriate regulatory framework, financing model and governance based on scientific excellence, capacity-building and joint initiatives.
- ! Foster the development of education, information and communication programs and technologies.
- Prepare Georgia's integration into the European Research Area on the basis of scientific excellence
- ! Expand the pool of Georgian scientists and engineers
- ! Create incentives for higher education institutions to increase the numbers of graduates in scientific, engineering and technical disciplines
- ! Modernize the nation's research infrastructure
- ! Increase productivity per worker
- ! Increase investment in technology, training and education

Thus universities and research institutions need a clear strategy to find their appropriate new role in country competitiveness so far as their traditional roles continue to be critical for economic prosperity. Georgia's innovative performance rests on a concerted effort to raise the level of education of the overall population. The public policy goal of lifelong education should be a major force in creating skilled human resources able to make the transition from an agrarian to an industrial society.