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**«БІЛІМ БЕРУ БАҒДАРЛАМАЛАРЫН  
ЖАҢҒЫРТУ: АККРЕДИТАЦИЯ ЖӘНЕ  
КАДРЛАР ДАЙЫНДАУ САПАСЫНЫҢ КЕПІЛІ»  
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ПРОГРАММ: АККРЕДИТАЦИЯ И ГАРАНТИЯ  
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**БІРІНШІ СЕКЦИЯ  
ПЕРВАЯ СЕКЦИЯ**

**КАДРЛАР ДАЯРЛАУ САПАСЫНЫҢ КЕПІЛІ ҮШІН  
БІЛІМ БЕРУ БАҒДАРЛАМАЛАРЫН ЖАҒАРТУ**

**МОДЕРНИЗАЦИЯ ОБРАЗОВАТЕЛЬНЫХ ПРОГРАММ  
ДЛЯ ГАРАНТИИ КАЧЕСТВА ПОДГОТОВКИ КАДРОВ**

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Serbayeva A. D., Kalimagambetov A.M., Mukhataeva K.A.**

**NOVEL "SISU"-FINNISH EDUCATIONAL AND TECHNOLOGICAL TUNE  
IN KAZAKHISTAN IS NEEDED**

Finnish society is focused on maintaining high standards of education, science, general cultural knowledge and technologies (1). Children are guaranteed opportunities to study and self-developing accordance with their abilities, and irrespective of their place of residence, language and financial status. All pupils are supposed to be provided highly competent and qualitative education and supervision, and a safe and relevant learning environment. Quite flexible educational system and basic educational security are equally important and provide consistency as a result. The Finnish educational system is attributed to three principal levels: basic education, consisting of primary and lower secondary schools; upper secondary education and vocational training; and higher education. Pre-primary education is offered to children in the year preceding compulsory schooling. Basic education provides a uniform nine-year education. The upper secondary level includes vocational education and training along with general education. Higher education is provided at universities and polytechnic schools.

Adult education and training is available at all levels. There is also liberal adult education offering a wide number of recreational studies and education which should develop diverse competencies and citizenship skills.

Students' transition from the lower level of education to the next one is supported by enacting legislation. Both general and vocational upper secondary certificates supply the graduates with eligibility to enter universities and polytechnic schools.

Anyone that has been watching Finland over the last few years knows that it is renowned by its ability to transform a big disaster into novel and multiple opportunities which predict an excellent future for this Scandinavian country.

Recent past has been marked at all levels of education by the decision made to strengthen knowledge, skills and to develop an adequate electronic services demanded by the information society. The aim of such trend is to ensure equal opportunities for all citizens to operate in a knowledge-based human environment. Thus, the input has predominantly been made into growing application of ICT (information and communications technologies) and electronic software in ongoing research. The main target is therefore an open and safe networking society with a high level of information skills and connecting ties. Extensive use of ICT is facilitated by investigations and tuition. Schoolchildren attending basic education learn ICT fundamentals and related skills. This knowledge is then developed in the upper secondary school, whereas ICT researchers and experts are getting their training at higher educational establishments. So Finland has obviously invested great resources in teachers' training in addition to quick developing online courses and corresponding learning environments.

**Negative experience of Nokia.** By 2000, Nokia (2) accounted for 4% of Finnish GDP, 70% of Helsinki's stock exchange market capital, 43% of corporate R&D (research and development), 21% of general exports and 14% of corporate tax revenues. In 2007, Nokia was recorded to achieve a market capitalization of \$250 billion. That was before the iPhone and Android phones would take away the lion's-share of the smartphone market from Nokia. Right prior to its deal with Microsoft to be made public, Nokia's stock price dropped to \$3-4 per share, thereby reaching a very low market value around 2 or 3% comparing to the market value in 2007. Nokia's decline and subsequent sale of its handset business to Microsoft has led to dramatically negative impact on Finland's economy. However, nature is able to turn disasters into successes. About 66 million years ago, a comet or asteroid struck the Earth and killed the dinosaurs including

75% of other living species at that time. This disaster had paved the way to the evolution of mammals, and humans in that order. Finns are known to be fond of domestic nature, and perhaps have employed the logics of natural catastrophes to so-called "Elopocalypse" (instead of "Apocalypse", the huge layoffs and selling of Nokia's handset business to Microsoft under then general manager, or CEO Stephen Elop). It was the best challenge encountered by Finnish ICT (1). Highly skilled and trained former Nokia employees had to begin promoting companies, conferences, venture organizations, and all the small initiatives and little enterprises required to create a competitive technological sector in Finland. Patrik Sallner, former Nokia director of insight and foresight, mentioned Nokia's failure that has released crowds of experienced managers. Managing staff of currently prestigious companies and startups in Finland has stemmed from Nokia. Moreover, observing the availability of technically gifted professionals, companies from Asia and Silicon Valley are nowadays busy with allocating and permanently re-shaping their R&D facilities in Finland.

**Slush Conference.** Slush, a mix of rain and snow, is the sign of Finnish November weather. Peter Vesterbacka, chief marketing officer of Rovio who produced a popular video game "Angry Birds", adopted the name for a high-tech start-up Conference he initiated. In just a few years, this conference has grown from its humble beginnings to a sold out global event with 15,000 attendees, 1,700 startups, 800 VC investors, and 630 mass media men from all over the world. It is indicative of the high-tech start-up culture that has propagated in Finland after Nokia laid-off thousands of employees and sold its mobile phone business to Microsoft.

**Supplementary infrastructure.** In addition to the former Nokia staff, Finland is currently called the Silicon Valley of Europe due to its friendly infrastructure revealing hospitability to technology and start-ups. Such friendliness has obviously a solid background of favorable factors, and namely:

**i,** top level of education; Finland is frequently in the top of the world education; Finnish students are ranked among the top three in the world;

**ii,** effective technology infrastructure; Finland has become Europe's leading information society; yielding only to the USA in using information technologies, and possessing the world's biggest number of mobile phones and Internet nodes per capita;

**iii,** abundance of prospective universities and research centers; Finland has developed a network of universities and science Centers of Excellence. Aalto University includes the former Helsinki University of Technology to grow into one of the top technical educational institutions in the world;

**iv,** conspicuous governmental support; Finnish Parliament has a special Committee of the Future, the Finnish Innovation Fund (Sitra), and the National Technology Agency (Tekes) financing R&D and innovation;

**v,** democratic government; parliamentary democracy is led by a President;

**vi,** Finland's leadership in R&D by the R&D expenditures as a percentage of GDP;

**vii,** easy communication; official business language in Finland is English;

**viii,** wide international presence; the country is the member of all respected international clubs such as EU, UN, WTO, OECD, IMF, World Bank, EBRD, AsDB, AfDB, IDB, the Nordic Council, ESA, CERN, and EUREKA;

**ix,** convenient geographic allocation and experience; Finland is regarded as a conventional bridge between East and West; it has the location, expertise, and long-standing history of bridging the gulf between Eastern and Western businesses;

**x,** most developed electronic banking system;

**xi,** exclusively effective stock market; Finland's stock market frequently surpasses overwhelming majority of the world's capital markets;

**xii,** acceptance of the Euro; Finland's monetary system is based on the Euro, one of the world's four steady currencies;

**xiii,** Finland's leadership in industry; in particular, addressing forest products, pulp, paper, board technology, and shipbuilding;

**xiv,** low taxation; Finland has the lowest corporate and capital tax rates among EU countries;

**xv,** safety; the country provides for a safe and risk-free online (virtual) environment;

**xvi,** "fibered and optic", extremely wired or more and more wireless; possessing digital, fiber-optic-voice and data-processing networks, Wired Magazine has termed Finland as "the most wired and wireless country in the world";

**xvii,** low corruption; Finland is tied with Denmark by exhibiting the least corruption in the world.

That is why Finland is a great choice for high-tech start-ups that want to settle firmly in an EU country.



**Definition of Sisu.** Apart from its developed infrastructure, Finland's history is filled with overcoming the weather, famine, foreign domination, and other adverse conditions. Difficult life in the past has made the Finns to keep up with innovations in order to survive and thrive. In Finnish language "Sisu" means national character combining stoic behavior, determination, bravery, guts, resilience, perseverance and hardness to overcome all the adversities. This word has become part of the national character and culture, especially under permanent rivalry to remain competing in the most competitive world.

**Nokia's Achilles' heel.** Despite the cloudless picture of the great technical start-up scene, the real world is tough. Finnish-grown tech start-ups are lacking marketing expertise. To overcome Finland's "secret know-how" syndrome, Finnish institutions should focus on modern approaches of effective marketing. Headlines pointing out product benefits rather than flashy brochures are required these days. Though Finns may have a hard time getting rid of their cultural habits of being introverted (self-effacing), they need to advertise their products to non-Finns.

Data and factbooks on current Finnish education and science are listed below (3-7). Modern education policy is focused on the implementation of reforms imposed by the Bologna process (1). Curricula and scopes of studies at universities and polytechnic high schools are supporting common European principles. Universities and polytechnic schools are based on updated quality assurance systems relevant to the European standards and practices.

Polytechnic education is concentrated on internationalization and the quality of services provided realized in the reform of degree structures, subsequent study processes, international student and teacher mobilities. In addition, polytechnic schools have improved their R&D activities by getting involved in regional businesses and industry, reducing rates and durations of education.

The main focus in the university educational reform has been made on internationalization and better quality of instruction and student counseling enabling shorter times of learning and facilitated entry into the labor market.

Finns anticipate (9) that for young people handicrafts, cooking, creative pursuits, and sports, are all important, as they allow young people benefit more from the skills they're learning every day.

Academics is not sufficient. Schools and high schools should teach the meaning of life, community skills, developing positive self-image, compassion and strong sensitivity to other people's feelings to prepare a new generation to be able to take care of society. All this is supposed to update ongoing education and support its motivation and strength.

In conclusion, based on all said above we do believe, there should be tighter contacts of KazNU with Finnish universities, R&D capacities, commercialization bodies and start-ups. For that our university may need to promote the teaching of the Finnish language and Finnish regional studies, simultaneously paying tribute to related IT, exchange, cultural and communicational programmes. It is high time to know more about "Sisu" in practice, especially under the pressure of world economic crisis.

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