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RIGA TECHNICAL UNIVERSITY
Faculty of Engineering Economics

**UZ ZINĀŠANU VADĪŠANU BALSTĪTAS
INOVATĪVAS UZŅĒMĒJDARBĪBAS
ATTĪSTĪBA**

Starptautiskais zinātniskais seminārs
Rīgā, 2006. gada 8. decembrī

REFERĀTU TĒZES

**DEVELOPMENT OF INNOVATIVE
ENTREPRENEURSHIP BASED ON
KNOWLEDGE MANAGEMENT**

International Scientific Seminar
December 8, 2006, Riga

ABSTRACTS OF PRESENTATIONS

RTU Izdevniecība
Rīga – 2006

ON FAKTORS OF DEVELOPMENT OF KNOWLEDGE BASED INNOVATION ENTERPRISE PAR UZ ZINĀŠANU VADĪŠANU BALSTĪTA INOVĀCIJU UZŅĒMUMA ATTĪSTĪBAS FAKTORIEM

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Innovation is the introduction of new ideas, goods, services, and practices which are intended to be useful. The main driver for innovation is often the courage and energy to better the world. An essential element for innovation is its application in a commercially successful way.

According to the statistics, in 2004 the total financing for research and development in Latvia equalled to mere 0.42% of GDP (1.93% of GDP in the EU on average). Research financing by the public sector made 0.23% of GDP, at the same time the existing system of research financing does not act as a catalyst that would attract private sector investment in research. In 2004 the private sector investment in research equalled to mere 0.19% of GDP (0.73% of GDP in the EU on average).

The innovation index of Latvia has not changed substantially in the recent years, and Latvia takes the 30th place among (the fourth lowest index) the 33 surveyed EU member states and associated states. In 2003-2005 mere 18.6% on average of all companies in Latvia were innovative, while at the same time this indicator was 45% on average in EU countries.

As hindering factors to innovation development in companies one would mention lack of entrepreneur awareness of the innovation role in the development of the company and in ensuring its competitiveness, insufficient availability of financial resources, especially the seed capital and risk capital, and the poorly developed mutual co-operation between companies both on local and international levels and co-operation between educational, research and industrial sectors.

Amount of investment of the public and private sectors into research and development in Latvia is among the lowest in the European Union, and this is one of the main factors hindering development of applied research, commercialisation of research results and development of innovative commercial activity.

According to the statistics one can conclude that it is very important to develop innovative entrepreneurship in Latvia. The analysis of innovation costs were following (in %):

- Research and experiments – 18.5%;
- Purchasing of equipment – 61.0%;
- Education, acquisition of knowledge – 19.5%.

On the cost structure basis we can conclude that costs on education and acquisition of knowledge should be increased in the future.

There is influence of 12 factors on development of innovative entrepreneurship in Latvia. Each of factors can be benchmark and set on knowledge basis. The model of innovative enterprise development (IE) in Latvia is described in formula.

$$IE = f[F_1 + F_{12}] \rightarrow E_{\max},$$

- where:
- F₁ – Volume of investments in innovations;
 - F₂ – Level of higher and special education in innovations;
 - F₃ – Level of research and development;
 - F₄ – Level of development of internal environment (regions, SME, entrepreneurship);
 - F₅ – Level of innovation infrastructure development;
 - F₆ – Level of manufacturing development;
 - F₇ – Level of development of Information and telecommunication technologies;
 - F₈ – level of management, including innovation politics and decision making;
 - F₉ – Level of product and service quality;
 - F₁₀ – Level of innovation marketing;
 - F₁₁ – Level of resource exploitation, including resource of information;
 - F₁₂ – Level of risks in innovations;
 - E – Level of effectiveness of innovative enterprise development.

The authors would like to point out that model includes resource of innovative knowledge, ability to use and manage it. Innovative knowledge involves basic knowledge, professional knowledge, creative knowledge etc.

It is possible to use costs on higher education per student and system of credit points in a university for evaluation of knowledge. This part of expanses could be considered as a part of investments in knowledge resources of an enterprise.

Research and development activities in a company, information what is gained and transformed in an enterprise and many other activities and sources transforms into knowledge. Information impact in the innovations could be calculated by using infounit method that is developed in Riga Technical University.