

Responding to the Challenges, Thoughts & Actions in the Way Towards an Innovative Entrepreneurial University in Tatabánya, Hungary

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Japanese-Hungarian Research and Student Conference
Budapest, February 3, 2020.

CONTENT

- ❑ Global challenges against the Higher Education System
- ❑ Possible response – the entrepreneurial universities
- ❑ Main features of the entrepreneurial universities
- ❑ Edutus as Entrepreneurial University – main initiatives
- ❑ The mission and tasks of the Edutus University as a regional entrepreneurial hub in the economic and social catching-up process of Komárom-Esztergom county.
- ❑ Contribution to these process of my PhD reseach issue: „Analysis of regional features in Komárom-Esztergom county from the point of entrepreneurial competitiveness”.

MAIN DRIVING FORCES TO RESHAPING HEI

GLOBAL TRENDS

CONSEQUENCES

Emerging demands for „tailor made” and attractive education (digitalisation, curriculums and new teaching methods)



Strong competition among the HEI's on international scale attracting more students

Scarce and narrowing resources (financial, infrastructural, human) from HEI side

Demographic trends + the social stratification of students becoming more and more heterogeneous + decreasing the number of publicly funded student places



In the future, it will not be a university degree that will determine a lifelong, single-focus career, but a series of complementary (adult) courses

Criticism toward the quality of HEI



Urgent need for networking, trust-building, mobility, deminishing the gap between the traditional academic and industrial approach (conflicts of interests)

These challenges can be managed by entrepreneurial university

- Generating additional revenues (in return for retaining high quality education and research activities) and multiply shrinking public funding sources.
- Adaptation to globalization processes (competition for students, teachers, researchers, other external assignments)
- Commercialization/exploitation of knowledge (business activity, role in economic growth) via multidisciplinary work
- Meeting the changing needs of mass education (including elite education)
- Industry 4.0. processes (digitalization, artificial intelligence, automatization/robotization)
- Challenges of meeting the requirements of the knowledge economy

A. ECONOMIC AND FINANCIAL ORIENTATION

- The University's mission statement or other **relevant strategic documents include a focus on achieving economic efficiency.**
- The sources of funding for the ongoing activities and development of **the university are "on multiple feet"**.
 - **University income: student fees / state normative support;**
 - **sources of research and development tenders,**
 - **sources of industrial assignments.** The proportion of the latter should be as high as possible, and in the long run the university should be self-sustaining.
- The annual financial statements of the higher education institution show positive economic performance.**
- The balance sheet value of the University's assets is increasing.

B. MARKET ORIENTATION

There are three important markets for HEI's:

- **Labor market:** where the graduated students can be located and the supply base of university teachers and researchers.
- **Education and services market:** a space of strong competition with other actors (offer portfolio, pricing and reputation / branding of the university)
- **Innovation market** - generating market demand for the university's research infrastructure and capacities to solve specific business and enterprise problems.

- ❑ **University curricula and topics are up-to-date, relevant, flexible and responsive to labor market needs and emerging trends. The HEI builds close-cooperations with its corporate partners.**
- ❑ **The university is fully aware of the competitive environment and is constantly monitoring it (stakeholder analysis, competitor analysis, partner / subcontracting, risk management).**
- ❑ **The university needs multilateral communication, market research and monitoring its competitors and partners, as well as extensive marketing activities to get position in all three markets.**
- ❑ **Implementation of two-way mobility (faculty / researchers and students vs. business people) between university and business to participate in joint projects and solve complex problems. (Trust building)**

C. INNOVATION-ORIENTATION

Breaking down the bureaucratic internal barriers to entrepreneurship, demonstrating entrepreneurial mindsets and competences in education (not only through the integration of such skills as standard training outcomes into specific subject areas, but also

by setting up business platforms, mentoring clubs competitions, games, simulation tasks, as well as the involvement of external company professionals in education as well).

For this, it is also necessary to regularly train and train the relevant faculty and faculty members (for the purpose of capacity building).

D. BUSINESS-FOCUS MANAGEMENT ORIENTATION

- A prerequisite for this is the full commitment of the university's top management towards the market and customer orientation
- Adapting the management methods and techniques implemented in the corporate governance of the university, adapted to the "university characteristics" (social mission, independence, etc.)
- Internationalization is part of the university's entrepreneurial strategy and the university management has the necessary commitment to do so
- The University will develop methods to measure the implementation of entrepreneurship and its economic and social impact.
- Broad involvement of university staff in decision-making processes



ABOUT HUNGARY MAIN FIGURES

AREA
93,022 km²

TIME ZONE
GMT + 1 HOUR

FORM OF GOVERNMENT
PARLIAMENTARY
REPUBLIC

CURRENCY
FORINT
(HUF)

GDP (PPS)
€ 194,248
MILLION
(2015, HCSO)

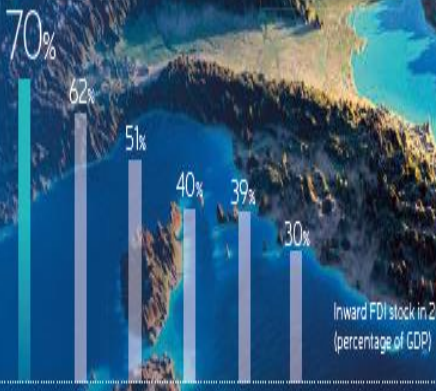
INFLATION
0.4%
(2016, HCSO)

POPULATION
9,830,485
(2016, HCSO)

CAPITAL
BUDAPEST
1,759,407
(as of January 2016)

OTHER MAJOR CITIES
Debrecen (203,059)
Szeged (162,621)
Miskolc (158,101)
Pécs (145,347)
Győr (129,568)

UNEMPLOYMENT
RATE
5.1%
(2016, HCSO)



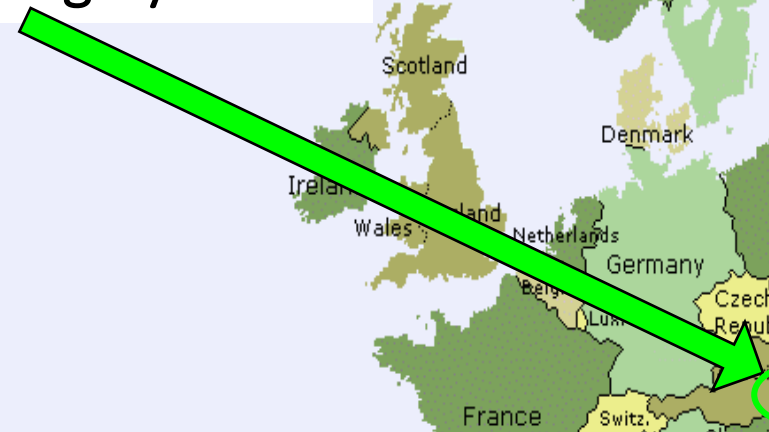
CLIMATE
TEMPERATE
(similar to the rest of the continental zone)

RISK OF NATURAL
DISASTERS
VERY LOW

MEMBERSHIP IN INTERNATIONAL ORGANISATIONS
EU, UN, OECD, WTO, NATO, IMF, EC
EU member: since 2004

(Source: HCSO = Hungarian Central Statistical Office)

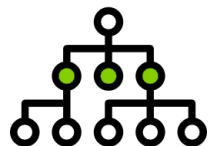
Location of Edutus in Europe, in Hungary







1000 students in the 2019-2020 academic year (private HEI)



Academic Staff: 60, Administrative and Technical Staff: 40



Number of publications (journals, book, conference proceedings): 498



700 million HUF (2,1 million EUR) financial support of the granted ongoing EU projects



Edutus 50: Institutional Development Strategy, Edutus RDI Strategy 2016-2020, Edutus International Strategy – is on progress

TOP MANAGEMENT OF EDUTUS UNIVERSITY



Dr. Andrea Némethné Gál
Rector



Mr. Zoltán Szögi
CEO
Edutus Non-profit Public
Corp.



Dr. László Vigh
Vice- rector for scientific
and international affairs



Dr. Gábor Szaniszló
Dean of the Postgraduate
and Adult Education

Business BSc.

(Tatabánya and Budapest)



- Business Administration and Management

Specializations (every means 6 units)

- E-business
- Innovative Enterprises
- SSC (Shared Service Center)

- Trade and Marketing

Specializations (every means 6 units)

- Content Marketing
- E-business
- International Markets

- International Business Administration

- Tourism and Hospitality

Technical BSc.

(only in Tatabánya)



- Engineering Manager

Specializations (every means 8 units)

- Project and process management
- Facility management
- Quality management (NEW – from 2020-2021-1 Semester) – based on companies demand

- Mechatronics Engineer

Specializations (every means 8 units)

- Laser technologies
- Maintenance (NEW – from 2020-2021-1 Semester) – based on companies demand



MASTER PROGRAMS
Above BSc
4 Semester – 120 ECTS

Business MSc
(only in Budapest)

- Marketing

Technical MSc
(only in Tatabánya)

- Engineering Manager

HIGHER VOCATIONAL TRAINING PROGRAMMES
Under BSc – 4 Semester
120 ECTS

Business (Tatabánya and Budapest)

- Business Administration & Management
- Trade and Marketing
- International Business Administration

ECONOMIST ASSISTANT

Technical

(only in Tatabánya)

- Engineering manager

ENGINEERING ASSISTANT

OUT-OF SCHOOL COMPANY COURSES
(Entrepreneurial University)

- 25-30 hours trainings at the companies (in-house)
- Knowledge transfer or knowledge upgrading
- Tailor-made issues
- Strongly practice-oriented courses
- For-profit

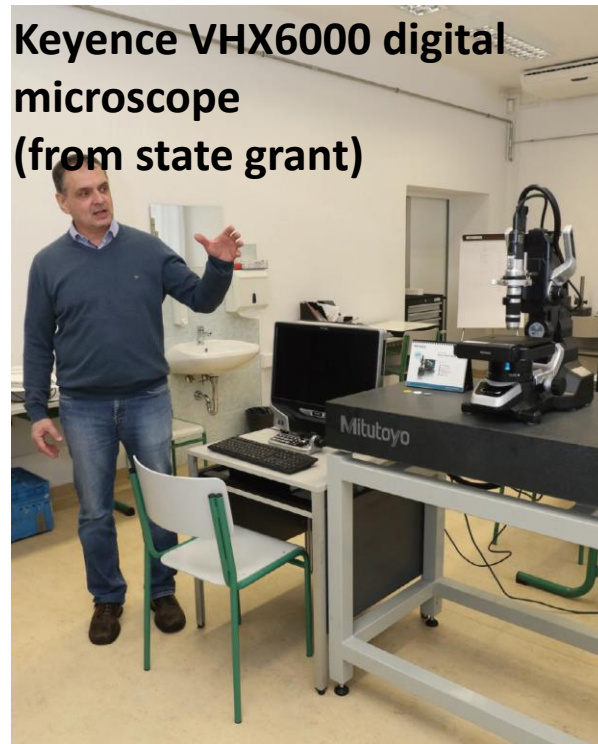
Infrastructural development examples at Edutus Engineering Institute



**YAMAHA YK-600X Scara
robot (sponsored by
Coloplast Hungary Ltd.)**



**Flat bed CO laser-cutting,
engraving machine
(from state grant)**



**Keyence VHX6000 digital
microscope
(from state grant)**



**MAKER-BOOT 3D printers
(from state grant)**

**FANUC710M-ib45 robot
(sponsored by AGC Glass Hungary
Ltd)**



COMPANIES



LOCAL GOVERNMENTS



SEVERAL FOREIGN HEI



PUBLIC ORGANISATIONS



Professional advantages:

Getting first hand experiences on foreign countries and their culture

- Supply – demand differences
- Management practices
- Service orientation
- HR policies
- Consistency (working in process)
- Personal service



Intercultural management

International marketing

The sense and use of Entrepreneurial Creativity in Business of the future

Hotel development

Tourism and hospitality

Web-designs of e-government websites

The business environment in South-eastern Europe

STRENGTHS

- **strong links between Edutus and the stakeholders of the regional economy (Entrepreneurial university)**
- the Management is committed for business exploitation of R&D outputs and the internationalisation processes
- **business and market-oriented view in the Edutus everyday operational activity – ENTREPRENEURIAL UNIVERSITY (PRIVATE HEI)**

WEAKNESSES

- in the field of the industrial assignments, the niche market opportunities are not defined yet, where the Edutus can be competitive compared to other actors with similar service portfolio
- lack of the critical mass of the researchers in the field of the priority research areas

OPPORTUNITIES

- widening and deepening the international cooperation, **mapping up the new international networking possibilities**
- join the international RDI programs
- **increasing the number of foreign students offering attractive and new competitive curriculum packages grants conditions and dual-diplom education for them**
- finding niche market opportunities and **new dimensions of strategic industrial partnership and sponsorships (ENTREPRENEURIAL UNIVERSITY).**

THREATS

- the weak attraction abilities of the Edutus to get new professors and students
- lack of the researcher replacement
- decreasing attention of the younger generation for the engineering and natural scientific careers
- narrowing the access to the domestic research financial sources, grants
- strong competitors in the field of the industrial assignments and „combat” for contractual works

The regional characteristics of Komárom-Esztergom County (KEM) provide a better target for the selection of multinational companies for production-building capacity investment venue in Hungary compared to the national average, primarily in the automotive industry. This trend will continue in the future.

One of the aims of the primary research is to review, analyze the period 1990-2019 and revealing the possible reasons beyond this trends and draw conclusions for the future with the help of interested "public actors" of the county (Chairman of the General Assembly, KEM OGY representative, KEM KIK chairman, KEM VOSZ chairman, Mayors of Tatabánya, Oroszlány and Komárom , Head of Oroszlány Science and Innovation Park) and the decision-makers for several selected companies (Bridgestone, AGC Glass, Borg-Warner and B&O Engineering Ltd.)

Expected results:

- can contribute to the strengthening of the regional competitiveness of the region, widening and deepening of the network cooperation between the regional actors,
- making recommendations that can be exploited for the examined companies.
- Creating new specializations at the Edutus University based on the feedback and emerging demands of the regional economic actors
- Establishing close-cooperation with the Tatabánya Vocational Training Centre (TSZC) to exploit the new opportunities related too the dual vocational trainings based on Industry 4.0. and digitalization

- ❑ Higher Education Institutions (HEI) have faced unprecedented challenges due to economic and social/demographic trends arising from globalisation. **These trends have crucial influence on the traditional higher education system's original mission, reshaping its "service portfolio" and organizational structure.**
- ❑ Due to this processes, **the "third-generation (entrepreneur) universities" gained increasingly importance, where besides the traditional educational and R&D activities they make efforts to take into practice the market-oriented knowledge-exploitation projects predominantly business purposes.**
- ❑ Entrepreneurial universities play pivotal role in the local ecosystem, it should be worth investigating of the **Edutus University to show how a regional HEI can take practice the main features of the entrepreneurial university by reviewing the various options for implementation in international context.**
- ❑ **The Edutus University should operate as a regional entrepreneurial hub in the local ecosystem focusing on the regional economic and social development tasks.**
- ❑ **Diversification of funding sources, the market and business-oriented operation of the university as an organization should be inevitable.**

Acknowledgement

The project results have been realized with a subsidy of the: Basic research project in the field of Laser-beam – technologies and energy at the Edutus College, complemented by knowledge transfer and activities aimed at enhancing enterprises linkages and social engagement (in Hungarian: “Lézertechnológiai és energetikai alap kutatás megvalósítása az Edutus Főiskolán, tudástranszfer, továbbá a vállalati kapcsolatok és a társadalmi szerepvállalás erősítését célzó tevékenységekkel kiegészítve”).

Project identification No.: EFOP-3.6.1-16-2016-000

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Thank you for your kind attention!

