



EDUTUS COLLEGE

**RESEARCH, DEVELOPMENT AND INNOVATION STRATEGY
(2016-2020)**

**UPGRADED AND EXTENDED VERSION
SUMMARY**

JULY, 2018.

1. INTRODUCTION

The role of higher education is contributing to the production of knowledge, the development of the culture of society, the education of adults, and the promotion of social mobility based on knowledge.

In addition, demand for higher education will continue to diversify in all countries. In developed countries, the focus is on teaching, research and innovation. Its role in the knowledge triangle remains the main factor. This greatly encourages the promotion of quality changes.

The role of higher education in research and innovation should be:

- Strengthen knowledge diffusion instead of strengthening knowledge commercialization
- Strengthen interaction and inter-institutional cooperation between higher education and other actors of R & D & I
- Improving the human resources base for research and technological development, supporting international and national mobility, improving career opportunities for researchers
- Developing the diversity of skills needed for innovation and expanding the criteria used in research performance evaluation.
- Promotion of project financing and mixed financing solutions, continuous monitoring of funding mechanisms, development of policy tools to influence the research and innovation system

The aim of the Hungarian Government to operate a higher education system that is highly motivated in the international educational and research sphere, capable of quickly responding to societal challenges and which basically determines Hungary's economic success. In order to ensure that in international competition the Hungarian higher education system does not permanently break away from higher education in other countries, institutions should be able to create the capability and conditions for the non-exclusive EU community financial sources-based operation. The current EU budget cycle between 2014 and 2020 is the last opportunity for Hungary to create competitive national higher education in a knowledge-based world economy. Development after 2020 (2023) can no longer be based on Structural Funds support. Therefore, it is also necessary to help higher education institutions involvement of external resources from their own operations despite the decreasing number of students. Therefore, to promote competitive education and quality, it is increasingly necessary to accept the view that higher education institutions should operate according to market principles.

These international trends, international and national policy responses to these issues, as well as the experience and feedback gained in the meantime, required the revision of the Research, Development and Innovation Strategy (hereinafter called RDI Strategy) adopted by Edutus College in 2016. The newly revised and expanded RDI Strategy based on the institution's existing strengths and opportunities to exploit, it was necessary to define a clear and feasible future vision: a private college that responds flexibly to a self-sustaining business model (market-based), which becomes a University of Applied Sciences (UAS) and becomes internationalized. The strategic goal of the vision is to develop a strong business, competition, marketable and feasible RDI projects generating and market funding capability (getting industrial assignments). Tasks include building up the necessary teaching, research competencies and capacities, carrying out the infrastructural development, reshaping and streamlining the organizational processes, and widening and deepening the international RDI co-operations, including the indispensable marketing and brand building activities. The achievement of the goals can be monitored by suitably chosen indicators.

2. THE SWOT ANALYSIS OF THE EDUTUS COLLEGE RDI ACTIVITIES

<p><u>STRENGTH (internal)</u></p> <ul style="list-style-type: none"> • the whole innovation chain has presence in the Edutus College • strong links between Edutus College and the stakeholders of the regional economy • the Management of the Edutus College is committed for RDI activities and the internationalisation processes • business and market-oriented view in the Edutus College everyday operational activity • support the new bottom-up initiatives and creativity 	<p><u>Weaknesses (internal):</u></p> <ul style="list-style-type: none"> • replacement of the experienced professors, associate professors, researchers and other educational staff members • low number of patents, scientific publications • ad hoc, industrial assignments, contracts • in the field of the industrial assignments, the niche market opportunities are not defined yet, where the Edutus College can be competitive compared to other companies with similar service portfolio • lack of the critical mass of the researchers in the field of the priority research areas • low number of the competent research teams • the effective management and usage of the existing infrastructure and research facilities • the Edutus College can be found at the rear field in the domestic ranking row of the Hungarian higher education institutions.
<p><u>OPPORTUNITIES (External):</u></p> <ul style="list-style-type: none"> • 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 competitive curriculum packages and grants conditions for them 	<p><u>THREAT, CHALLENGES (External):</u></p> <ul style="list-style-type: none"> • the weak attraction abilities of the Edutus College 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

<ul style="list-style-type: none"> • the role of the vehicle industry and automatization will be more significant in Komárom-Esztergom county. • market entrance with finding niche market opportunities and getting industrial contracts (entrepreneurial university) • the strong market and industrial demands for well-educated, highly motivated mechatronics engineers, engineer-managers and economists professionals/researchers t • launching engineer- informatics education or widening the existing specializations in the field of the mechatronics engineering and engineering-manager portfolio • increasing innovation needs from the SME sector 	<ul style="list-style-type: none"> • unable to meet the requirements arising from industrial contracts due to human capacity and infrastructural problems. • strong competitors in the field of the engineering industrial assignments and contracts „combat”
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3. MISSION AND VISISON OF EDUTUS COLLEGE

Edutus College as private and practice-oriented entrepreneurial higher education institutions - which becomes a University of Applied Sciences in the near future and join the international RDI networks and programs - reacts to the emerging market needs quickly and relevant manner and its activities based on an flexible and sustainable business model. This means market-orientation involving external resources: grants, tenders and industrial contracts, attracting growing number of domestic and foreign students offering competitive educational portfolio and services. In addition to, Edutus can serve as a good practice for other domestic higher education institutions.

4. MAIN STRATEGIC GOALS AND INDICATORS

Strategic goals	Indicators
<p>„Speed-up” the RDI activities</p> <ul style="list-style-type: none"> • due to strengthening the research work groups, and encouraging the interdisciplinary cooperation and teamwork at least every second tutor, lecturer should to participating in theses scientific programs and projects 	<ul style="list-style-type: none"> • the ratio of total sum of the granted RDI projects and contracted industrial assignments in the budget of Edutus College (percent) • the extent of the utilization of research infrastructure (percent)

<ul style="list-style-type: none"> • increasing of the quality and quantity of the publication activities • providing the EIS access for the Edutus College Library • improving the ratio of the educational staff members holding PhD. degree • widening and deepening the Scientific Student Activity (TDK) • organising and delivering „outdoor” lectures/classes at the companies for the engineering BSc and MSc. students • increasing the „Corporate Social Responsibility (CSR)” role of the Edutus College 	<ul style="list-style-type: none"> • income from granted research projects per professor/ number of applied R & D project proposals (in total sum) • number of commercialised patent application/ total number of patent applications • organising inter-institutional RDI networks (piece) • number of tutors/instructors holding PhD. degree (person) • total number of publications (piece) • total number of Web of Science (WoS) and Scopus publications (piece) • number of conference presentations/lecture (piece) • number of students involved in the Scientific Student Activity (TDK) (person) • results of the Edutus students on the National Scientific Student Conference (OTDK) (position in the ranking row)
<p>Commercialization of the scientific outcomes</p> <ul style="list-style-type: none"> • enlargement the number of developed products and service portfolio delivered by Edutus College • improving the RDI project management competencies and entrepreneurial skills of the tutors, researchers • widening the IP portfolio of Edutus, know-how sales and licencing • set-up spin-off company • re-launching activities of the knowledge and technology transfer office 	<ul style="list-style-type: none"> • number of successful knowledge and technology transfers (piece) • number of commercialized know-how's (piece) • ratio of incoming revenues arising from the commercialized IP's in the Edutus budget (percent) • the number of the spin-off companies established by the Edutus (piece) • number of newly generated co-operations by commercialization of IP's (piece)
<p>Generating business</p> <ul style="list-style-type: none"> • projects generations, contracted industrial assignments, involvement external (market) sources, widening the clients network 	<ul style="list-style-type: none"> • number of contracted industrial assignments (piece) and the ratio of incomes arising from these ones in the Edutus budget (percent)

<ul style="list-style-type: none"> • necessary infrastructure development investments by grants • harmonising the different clients networks of Edutus (CRM). • Auditing and testifying the Industrial Laser Laboratory in line with the ISO 9001:2015 provisions (it can lead to new market opportunities) • widening the educational and service portfolio in the field of industrial robot techniques with a newly gifted FANUC robot (donated by the AGC Glass Ltd., which is a good example of the strong link between the industry and the HEI) 	<ul style="list-style-type: none"> • number of provided business development or organisational development consultancy services for external clients, partners (piece) and the revenue ratio arising from these ones in the Edutus budget (percent) • number of the granted RDI project proposals (piece) and the revenue ratio arising from these ones in the Edutus budget (percent) • number of submitted patent applications (piece) • number of approved patent applications (piece) • number of corporate clients with contracted industrial assignments (piece) • number of the external inquiries (piece) • volume of acquisition of tangible assets (euro) • added value pro person (euro) • asset return • getting ISO 9001:2015 status till December 31, 2018.
<p>Internationalization (RDI international co-operations and networks)</p> <ul style="list-style-type: none"> • elaboration of the Edutus College International Strategy • increasing the mobility of the students and the tutors • increasing the number of the foreign students • creating joint-degree education • generating international RDI projects or co-operations 	<ul style="list-style-type: none"> • number of tutors and researchers participating in ERASMUS CEEPUS program • number of tutors and researchers participating in international RDI programs and other cooperations (person) • number of visiting foreign professors and guest lectureres (person)

<ul style="list-style-type: none"> • Extension of the International Week for the engineering educations and specializations as well. 	
<p>Branding</p> <ul style="list-style-type: none"> • interviews with the members of the Edutus management • preparing promotion films and videos for the community websites • Creating own webpage for the Engineering Institute and the Industrial Laser Laboratory • „Acta Periodica” (own research journal of the Edutus) has to become qualified journal 	<ul style="list-style-type: none"> • the number of articles in the media related to Edutus College (piece) • presence on the community websites (number of visitors, number of likes) • watching ratio of the promotion videos and films – e.g. introduction of Engineering Institute and Industrial Laser Laboratory (percent) • number of targeted inquiries (piece)