

University of Tartu: Cultivating entrepreneurial mindset through the inclusion of relevant stakeholders

Tartu, Estonia





General Information

Title	University of Tartu										
Pitch	Cultivating entrepreneurial mindset through the inclusion of relevant stakeholders										
Organisation	University of Tartu										
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Author	Dr. Samo Pavlin (University of Ljubliana)										
Nature of interaction	<table><tr><td><input type="checkbox"/> Collaboration in R&D</td><td><input type="checkbox"/> Lifelong learning</td></tr><tr><td><input type="checkbox"/> Commercialisation of R&D results</td><td><input type="checkbox"/> Joint curriculum design and delivery</td></tr><tr><td><input type="checkbox"/> Mobility of staff</td><td><input type="checkbox"/> Mobility of students</td></tr><tr><td><input checked="" type="checkbox"/> Academic entrepreneurship</td><td><input checked="" type="checkbox"/> Student entrepreneurship</td></tr><tr><td><input type="checkbox"/> Governance</td><td><input type="checkbox"/> Shared resources</td></tr></table>	<input type="checkbox"/> Collaboration in R&D	<input type="checkbox"/> Lifelong learning	<input type="checkbox"/> Commercialisation of R&D results	<input type="checkbox"/> Joint curriculum design and delivery	<input type="checkbox"/> Mobility of staff	<input type="checkbox"/> Mobility of students	<input checked="" type="checkbox"/> Academic entrepreneurship	<input checked="" type="checkbox"/> Student entrepreneurship	<input type="checkbox"/> Governance	<input type="checkbox"/> Shared resources
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Supporting mechanism	<table><tr><td><input checked="" type="checkbox"/> Strategic</td></tr><tr><td><input checked="" type="checkbox"/> Structural</td></tr><tr><td><input type="checkbox"/> Operational</td></tr><tr><td><input type="checkbox"/> Policy</td></tr></table>	<input checked="" type="checkbox"/> Strategic	<input checked="" type="checkbox"/> Structural	<input type="checkbox"/> Operational	<input type="checkbox"/> Policy						
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Summary	<p>The Strategic plan for the University of Tartu sets out its ambition to be an enterprising university through the “development of enterprising spirit and entrepreneurship”. One of the foundations for its activities in this area is the relationships between the university and stakeholders from the regional and national level. There are five main areas where the strategy focuses: entrepreneurship education, IdeaLab, technology transfer activities, career support and practical learning, and cultural changes and image. By involving stakeholders in the development and delivery of activities, students are being provided with new knowledge and experiences which support the entrepreneurial mindset. In addition, the new relationships with stakeholders, facilitate a growing entrepreneurial spirit in the region and beyond.</p>										



Introduction & Overview

1. BACKGROUND

The University of Tartu (UT), the national university of Estonia, was founded in 1632 and includes four faculties: the Faculty of Arts and Humanities; the Faculty of Social Sciences; the Faculty of Medicine; and the Faculty of Science and Technology. UT is currently experiencing a transformation from a traditional to an entrepreneurial university.

The UT's entrepreneurial orientation is part of the strategic direction of the new university leadership. A 2015-2020 Strategic Plan sets out the vision to become an "enterprising university" with associated actions for fulfilling the strategy. There was consensus among the faculties and academic leaders that a considerable part of the strategy had to be devoted to this particular objective. The vice-rector for development is responsible for embedding the entrepreneurial university concept within the institution.

The implementation of the strategy focused on two main activities: start-ups, especially student start-ups, and entrepreneurial education. However, it also included improving other more traditional support services such as technology transfer activities.

In order for the strategy to work, the university needed good relationships with its surrounding environment. UT has a strong emphasis on cooperation with businesses and understands the importance of the role of knowledge-intensive entrepreneurship in developing the economy and the welfare of society.

The university invests in good cooperation with Estonian and foreign business, inspiring business to more actively use the university's research infrastructure and improving innovation and research communication by increasing the interest in and awareness of innovation and science among Estonian residents and business through various forms of cooperation¹.

2. OBJECTIVES AND MOTIVATIONS

The objectives of university-business cooperation (UBC) and particularly the entrepreneurial development are contained in the university's Strategic Plan for the period 2015-2020. The developmental objective aims for "*innovation and an enterprising spirit through which knowledge finds its way into the economy*". The entrepreneurial university and enterprising attitude are supported through:

- ▶ enabling students to develop their general and area-related business competencies which are based on their needs and interests;
- ▶ providing employees with opportunities for self-improvement in the area of enterprising spirit and entrepreneurship;

- ▶ assisting students in reflecting the interests and needs of business and society by choosing research paper topics and encouraging the cooperative supervision of such papers; and
- ▶ contributing to the creation and growth of knowledge-based business and innovation².

To achieve these objectives, the university conducts numerous activities that include stakeholders from the regional and national level (Tartu Region, the state of Estonia) as well as beyond (the Baltic Sea region, the wider international scope).

3. STAKEHOLDERS

The main stakeholder groups are students, employers, employer associations and academics.

The UT aims to engage **students** from undergraduate, master and PhD levels in UBC to experience entrepreneurship education or be involved in different kinds of initiatives related to entrepreneurship education. Students form teams of usually three to five students who are engaged in certain types of entrepreneurship activities. Besides learning during the study process, these student teams also provide entrepreneurial ideas, write business plans, prepare project proposals, organise different events (conferences, sport days, etc.) while those more experienced are also given the opportunity to supervise other student teams. The size of a student team can also be bigger if needed by the circumstances.

Employers and employer organisations are involved through the UT Network of Centres of Entrepreneurs (a Mentor Network) with more than 100 members from different industry sectors and 20-30 very proactive members. In general, they cooperate in courses, learning situations, mentoring, evaluating entrepreneurship ideas, investing etc. Some mentors within the network are not entrepreneurs but specialists working within companies. Their role concerning the entrepreneurship activities (entrepreneurship education and activities related to the IdeaLab and competitions) is to supervise, mentor and/or give advice to student teams as they develop their ideas. They are also invited to participate in the teaching activities by sharing their experiences and bringing real-life problems and projects into the classrooms. Students' collaboration in solving entrepreneurs' problems might lead to new and fresh ideas for solving problems, which may also result in student internships and possible employment.

Internally, UT is also trying to find a mutual basis for cooperation among the different institutes and faculties inside the university and thus involve all of the faculties in UBC activities. Depending on the situation and circumstances, entrepreneurship and entrepreneurial education demands both the engagement of academics who are experts in specific areas, and external staff.

The coordination of entrepreneurship education and entrepreneurship within the UT is made by the Centre of Innovation and Entrepreneurship, which also coordinates IdeaLab activities and the Academic Chair of Entrepreneurship.



Implementation

4. INPUTS

The university has created a special position in the top-level management, the position of the Vice Rector for Development, who is responsible for institutional development of the university and building up the entrepreneurship university.

The funding for entrepreneurship education is predominantly the responsibility of the university, although there are also external resources such as for example the EU Social Fund. The financing policy (for example for professors and researchers) depends also on the external financing that is brought to the university. The activities mainly take place on the university's premises, as an exception also externally (visits to companies, Start-up days, etc.)

The concept of IdeaLab was developed in 2011 when students who develop new ideas and projects in an interdisciplinary manner required a space at the university to meet and further develop their ideas. IdeaLab, currently located within the Faculty of Economics involves three or four key persons (interdisciplinary staff with a background in economics and marketing) who lead the IdeaLab as well as the space using central funds (around 200 m²).

Technology transfer activities are supported by the Technology Transfer unit, which employ about 10 people from various disciplinary areas, mainly related to natural and technical sciences. It has an office at the university research and development department. Other facilities include a special department for protection of IP and special computer programmes and commercial databases for patenting (some patenting data bases have been developed by them).

Regarding human resources, the career unit is very small with three people working in it, however every faculty has study programme leaders who are trained by career unit members to include career development concepts into the teaching process. The unit is funded by the university and it is part of the office of academic affairs.

5. ACTIVITIES

The Vice Rector for Development is responsible for organising, coordinating and following up the results of the UBC activities.

The UBC activities in UT can be divided into five core pillars:

- ▶ entrepreneurship education;
- ▶ IdeaLab;
- ▶ technology transfer activities;
- ▶ career support and practical learning; and
- ▶ cultural changes and image.

Entrepreneurship education

Entrepreneurship education at the UT is run in the form of entrepreneurial courses, which are part of the official curricula. UT organises this at the university level and offers 60 entrepreneurship courses during the academic year (autumn and spring semester) involving around 1,200 students per year. The duration of the courses is usually one semester. For those willing to continue to study entrepreneurship after the general courses, advanced courses are offered, which are designed specifically for different faculties (e.g. bio-entrepreneurship, social entrepreneurship, creative entrepreneurship, science entrepreneurship, etc.). UT is also providing interdisciplinary entrepreneurship courses. The credits that can be earned by students depend on the curricular requirements and thus the credit points vary. Those attending the courses are full-time students as well as distant learners. The groups at lower levels (2nd and 3rd years of the first cycle) come from specific domain areas and are more homogeneous, but there is already greater variation in the student groups at higher educational levels - Principles of Entrepreneurship I (three credits) & II (three credits) or Basic Course for Creative Entrepreneur (six credits), Practical Training for Entrepreneur (six credits) and Feedback Course for Creative Entrepreneurs (two credits).

In more detail, the entrepreneurship courses are based on entrepreneurship processes, opportunity, recognition, evaluation, experiential learning, and hands-on activities, which enables active learning and interaction. There is also a lot of emphasis on providing feedback and consultations with the teams, in turn necessitating considerable resources and teacher engagement. These kinds of courses are also seen as the most successful. Also, starting from the 2017 (autumn semester) the new courses specially designed for the teacher education curricula (with the focus on Entrepreneurship Competence development at all levels of education) will be provided in cooperation with entrepreneurship Academic Chair and the Institute of Education.

There are 3-4 senior lecturers/coaches that are responsible for the whole course and they also organise bringing in entrepreneurs, specialists or mentors for the courses when needed, based on service contracts. External parties are always involved in business and project idea evaluation processes, and in business idea competitions. Additionally, at times entrepreneurs are asked to share their experiences, they participate in panel discussions or are involved in learning processes for longer periods.

The UT is also a leading partner in an EU Social Fund nation-wide project initiated by the Ministry of Education and Research under the lifelong learning strategy. The project is building up a national framework for entrepreneurship education to systematically develop entrepreneurship education at all educational levels in Estonia. For this purpose, they have been working on an entrepreneurship competence progression model for application across the educational levels to guide how the competencies related to entrepreneurship should be developed, for example in primary school, secondary school or vocational and teacher education. UT also provides training, business ideas competitions, pre-incubations, research, and competence-sharing. The programme has many stakeholders – from 60 to 65 people working with the activities on daily basis from various Estonian educational institutions. There are also external partners from schools and employers' associations, the Centre of Commerce of Estonia, local

municipalities, the Ministry of Education and Research, the Ministry of Finance, the Ministry of Economic Affairs and Communications are involved in it on a daily basis. This programme develops competence frameworks, methodology and teaching materials for entrepreneurship competencies and design courses, research, organises the pre-incubation programme STARTER, among other activities.³

IdeaLab (extracurricular activities)

IdeaLab is a service for all students and is part of the Centre for Entrepreneurship and Innovation. The Centre is run by a team including an entrepreneur responsible for advising, the marketing team which attracts greater interest from the companies, and the teaching team that prepares and executes the idea competition and thematic seminars plan (nine people in total).

The main purpose of IdeaLab is to provide extra support in the field of entrepreneurship education, complimenting rather than duplicating the entrepreneurship courses. IdeaLab's activities include inspirational events, seminars (on specific themes – for example, how to do marketing in social media) and workshops based on students' needs. These activities are cost-free, students attend them on a voluntary basis and they also strive to find new team members or obtain counselling on their ideas. It is a very personalised way of supporting student teams in developing their entrepreneurial ideas. The development of business ideas is gradual. Out of 200-300 students, approximately 50 to 100 go into the second phase of forming interdisciplinary teams and starting to work on their business ideas in IdeaLab. The best ideas are presented a year later and some student teams also have the opportunity to attend the joint event with student teams from the United States. The joint programme with College of Charleston and Nebraska Wesleyan University from the United States, supported by Harry and Reba Huge Foundation, is currently in the enlargement phase and offers for interdisciplinary teams of student entrepreneurs a 2-months intensive course to develop unique, viable new products on the competitive basis with the best teams rewarded.

IdeaLab is part of 'after-studies' as it is typically attended by students who already have some ideas that were developed during the entrepreneurial course and want to pursue them. The representation of students from different faculties is somewhat equal, although students from the ICT field are very much in demand by most teams since the majority of new ideas are linked with ICT development (at a minimum, setting up a webpage). The supervisor can be an academic or an external expert. When relevant, they invite mentors who are experts in specific areas relevant to the teams' ideas. Since IdeaLab's activities are specific to each particular team, there is a challenge to find enough mentors.

The duration of activities depends on the topic and varies from one semester to a year. If it is longer, the idea can be ready for the incubator or accelerator. If the ideas are very specific and science-based, like for example bio-technology, they go to the technology transfer unit, which takes on the responsibility for specific scientific ideas.

From 2016, Idea Lab's runs twice a year STARTER, which is a pre-incubation programme designed in collaboration with eight universities in Estonia and financed by the European Social

Fund. Participants can choose between three centres: STARTER creative (Tallinn University), STARTER tech (Tallinn University of Technology) and STARTER lab (University of Tartu). STARTER is a practical training programme that enables participants to develop ideas into validated business models/prototypes and get regular guidance from supervisors and experienced business mentors. Special attention is the idea Lab Vega Fund that financially rewards best business ideas developed by students in the value of €80,000.⁴ IdeaLab and all related activities culminate on the so-called Start-up Day: the first Start-up day took place in December 2015 and brought together about 3,000 visitors⁵. The proper motivation of students was an essential part that contributed to the great success of the Start-up Day.

Technology transfer activities

The aim of the technology transfer activities is disclosure and technology development. The technology transfer unit provides support for the scientists in technology development. They make around 10 to 15 disclosures each year (patenting applications), with more coming from technological than social sciences.

On this basis, they suggest in which direction patenting process should develop: service, product, spin-off company, or licencing. This depends on supply and demand side, so professors, students and industry. The technology transfer unit also prepare the intellectual property portfolio, marketing and commercialisation activities with the assessment of the commercial value and potential customers.

The unit also deals with marketing and commercialisation activities by identifying possible clients, making analyses, and establishing contacts and negotiations.

The technology transfer unit offers and makes available a technology developed by the researchers to companies, for example, Lab of Cancer Biology, Estonian Biobank, Advanced Corrosion Resistance Treatment, Novel atomizer source, Estonian Electronic Microbial Database.

UT is a leading partner in the cooperation network called Adapter, an entrepreneurial platform of six Estonian universities (in addition to UT, Tallinn University of Technology, Estonian University of Life Sciences, Tallinn University, Estonian Academy of Arts and Estonian Academy of Music and Theatre) that brings together the needs of entrepreneurs and development potential of universities. The network is in an enlargement phase, with other HEIs and Research institutes joining. The network provides a quick and reliable link for companies and organisations with the research and development community.⁶ The platform enables companies to obtain answers to their questions and problems from all Estonia universities within five business days. They have developed a single-entry point, and on the Estonian level this process has made technology development at universities more visible. During the start-up period October 2016 – January 2017, companies have made 50 enquiries through the Adapter system, the target in the near future is at least five inquiries per week.

Career support and practical learning (internships)

Career services is part of the Office of Studies. Different methods are used to approach students: individual consultations, smaller group works, larger group tuitions (which normally involve 20 to 30 people) and the Career Day, which takes place in March or April and represents a meeting point for students and companies, with 600-1,000 students attending. Career services events are also organised by the students themselves and the student union.

Regarding practical learning or internships (curricular activities), students have two options: one option is an internship in a company and the second option is a project-based internship, where students cooperate with a company to solve a specific company or enterprise problem. In this case, the internship is not located within the company but students approach it only when needed for information and/or advice. The representative of the university notes that, with proper supervision, this mode of internship is more interesting as students are able to resolve real-life problems of actual companies. However, not all internships are entrepreneurially related.

The internships are mainly carried out on the PhD level and organised centrally. The university has specific financial instruments available for so-called 'industry PhD students' and PhD works connected with the needs of the entrepreneurial sector.

The internships on the master's level depend strongly on the curriculum or subject being studied and are instead organised by the faculties. The master's students are also offered a centrally organised platform called 'student web' (developed by the career service and the university), which represents a marketplace and meeting place where companies publish suggestions for practice. The most advanced internship system is seen in the studies of ICT. As the university is paid for students when they finish the university, they have to take care that IT companies do not 'steal' the students before they actually complete the university.

Cultural changes

The introduction and implementation of entrepreneurship education in UT demanded vast changes. The first issue lies in the question of what is behind the entrepreneurship education, what is the underlying mentality or methodology. These not only entail entrepreneurial skills (what is a company, what is a business plan, and how to make it) but also send the message that the university also considers these issues to be important in the academic world. According to the UT representative, the ideal picture would emerge when, in all courses being taught, the teacher would also provide the entrepreneurial background (how the subjects are connected to products on the market, what are the possibilities of developing new products). To reach this goal, academics need to change their mind-set, their teaching and to ensure better connections with the outside world, which is a significant challenge.

Other UBC activities

UBC also covers staff development as the UT is the largest provider of continuing education among all Estonian universities. In this respect, it provides tailor-made courses intended as training courses for companies. They are designed according to the needs of a particular company. The UT also provides open-registration training courses of various lengths, e-learning

courses, summer and winter university courses for managers and employees from different sectors. UT also offers participation in degree study courses as learners that provide the possibility to choose a suitable course from the degree study curriculum and study together with degree students and self-directed courses with the option to independently complete a study programme based on the participant's needs and goals⁷.

In addition, UT supports the establishment of spin-off companies. In December 2016, there were 59 spin-offs. Based on the university's own definition, a spin-off is a company that (based on an agreement with UT) wishes to underline its affiliation with the university to develop its commercial activities. Its founders and/or partners include the university and/or university employees or students and it uses the university's intellectual capital (knowledge, information, intellectual property, experiences, etc.) and/or infrastructure in its activities. UT acquires no ownership in the spin-offs but the ownership of a university member (academic) is considered to be sufficient and the UT expects indirect returns and a socio-economic impact for society.

6. OUTPUTS

Annually around 1,200 students participate in different entrepreneurship courses, including practical projects and interdisciplinary teams. The output of *entrepreneurship education* is the provision of new knowledge and experiences to students, who are supported to have an enterprising mindset and to start thinking about entrepreneurship. This is reflected in better jobs and the development of business ideas. The final output of the *IdeaLab* focuses on initiating the start-ups (5 to 10 new start-ups are formed every year) by helping student teams to initiate their business, although the main output is to generate students' interest.

The main outputs of the *technology transfer unit* are contracts of applied research, financed from different foundations and directly from the industry. The representative of the UT points out that UBC company contracts should also be accounted as a research output (the same as publications), although they currently do not. UT is in the top position among Central and East European universities regarding the volume of contracts from the EU Horizon 2020 programme, where often industrial partners are involved. The number of industry contracts is 80-120 per year. With the strategy of paying more attention to open access and using not published IP in industry contracts, disclosures and patents are still important – there are around 10 disclosures per year and last year there were four patent applications. Outcomes of the Adapter (cooperation network of public universities – see previous sections) so far are around 50 incoming requests per four months during the start-up period and 100 hits per day web page visits per day, and is increasing.

7. IMPACTS

The main impact or goal of the entrepreneurial activities is to ensure that students who finish the university understand what are their best skills and what are the best opportunities for competing in the job market. Expected changes that occur in the long term can also be to a

large extent perceived in line with the main outcome of the national entrepreneurship education programme led by UT: systematic framework and agreement on what entrepreneurship education in Estonia and also at UT should look like. As the entrepreneurship competencies are very interdisciplinary, there are many components and elements, starting from motivation and the mindset to social skills and other elements. All of these are transferable to different kinds of skills so there is a framework the educators can use to ensure a progressive approach and use as a tool to address these issues in either primary school, in higher education or even doctoral education.





Support & Influencing factors

8. SUPPORTING MECHANISMS

A key supporting mechanism is the university's strategy and its implementation. Every year they make the management plan for the following year where they define the types of activities that should be financed in the next year from the central development fund. Some activities that need longer period to start are marked to be financed for two or three years. There are five priority areas in the university strategy: teaching, research, entrepreneurship, organisational development and preserving Estonian culture and language. The direct goals are defined annually (14-18 goals per year), along with the central support for their development to carry these activities out to implement the strategy.

In the implementation phase, there are various contributors and the responsibilities are clearly divided between different central support structures as individual units are responsible for developing certain pillars. For example, technology transfer and spin-offs are the responsibility of the Office of R&D and its Technology Transfer unit, while entrepreneurial education is a task of the Centre of Entrepreneurship and Innovation.

9. BARRIERS AND DRIVERS

One of the greatest barrier for developing an entrepreneurial university is the geographic location and the lack on an entrepreneurial ecosystem around it. There are very few bigger companies in Estonia and very few investors, and thus they are unable to pool together large investment funds. Even when developing a new start-up, there is a fear that it might relocate. Thus, it is important to create an entrepreneurship community, atmosphere and environment to attract companies.

Financial resources also pose a barrier. As an example, if trying to involve entrepreneurs they cannot cover all their expenses according to the skills they possess so they mainly expect alumni and other people who for other reasons are prepared to make an in-kind donation to the university in the form of time spent for lecturing, mentoring etc. Many of the alumni of the university are eager to support the university, but rather than providing financial support they offer their time to share their knowledge and skills that are used in the teaching process.

Barriers are also found in the area of human resources. Running the IdeaLab demands that academics from all over the university are involved and this is the most difficult task. Their inclusion is chiefly voluntary due to their awareness of the importance of these activities to help students get jobs after they finish the university. But if there is a possibility to establish a new start-up this could be one incentive for them. In addition, there should be a turnaround in terms of putting teaching activities before publications.

Related with business, there is still strong dependence on the EU Structural Fund, so most companies UT cooperates with expect the state agencies to cover the expenses of their R&D work, which calls for another change in mindset.

The main driver of UBC is the understanding and concept that in future, the success of the university is more and more based on the existence of mutual commitments and shared goals with business sector, at the same time realising that the university should understand the changes in employment caused by technology development, and cultivate this understanding in the society. For that, the university has created a special position in the top level management, the position of the Vice Rector for Development, who is responsible for building up the entrepreneurial university. The partnership programme and curricula development of the university are tackling these issues.

In the shorter term, the driver is also the approach chosen by the Ministry of Education and Science that continuously is increasing the share of base financing of the universities based on the indicators of UBC cooperation. For university, the challenge is to change the career models of academics that make it possible to valorise more the work done for companies as well as creating new spinoffs.

10. FUTURE CHALLENGES

Regional development is one of the biggest challenges for the future developments. The innovation network and atmosphere should provide additional values for UBC in the region. There are three different methods to develop the region: to make traditional companies more innovative; to try to involve investments and bring companies in from other parts of Estonia and from abroad; and, to develop a very strong start-up culture. At the moment, it seems that the third method – creating a strong start-up culture and expecting to have many new companies, especially in the fields of ICT but also in biomedicine and material technology – is for the region perhaps the strongest method for developing together with the town and region. Luckily, in Estonia there is growing interest in establishing new and bigger companies in relation to the natural resources – either forestry, agriculture, crops, or mineral resources.

Another upcoming challenge for UT is to include financing from additional sources and to involve every student in the entrepreneurship education, which entails a big cultural change.

Moreover, one of the challenges lies in how the academics understand the needs of the company while the company should also understand how the academic world functions. The partnership programme which is focused on bigger companies and organisations is trying to explain this to academics and to bring their needs into the university.

Regarding internationalisation, it is very difficult to run an Estonian language university and at the same time become international. As a consequence, internationalisation is a strong theme throughout the strategic agenda as a way of reinforcing this element and its importance.

11. CONTEXT

In terms of the UBC context, the industry sector to a large extent determines the way of doing things. One might assume it is easier to implement most of the entrepreneurial activities in a technical university and to only concentrate on one kind of specialisation and topics. Humanities and social sciences face larger challenges in this respect. At the same time, the principle of the UT inter-, multi- and transdisciplinary orientation opens up new opportunities, for example the development of a curriculum in IT-law.

Regarding the academics' experiences with businesses, the Technology Transfer office relies on the 40 to 50 academics (out of 2,000) who are UBC experts. These academics already have business contracts, are creating spin-offs, and using these concepts in teaching. The involvement of all other academics is very important but also a most difficult task.

Despite recent governmental changes, there is a general consensus that entrepreneurship and entrepreneurial education are important so no major changes are expected in this respect.

12. KEY SUCCESS FACTORS

The UT success is based on three main factors: the first is the strategic plan and the structured and efficient way it is implemented; the second is finding the right people to carry out what is expected as well as consistently keeping in mind and leaving the window open to all kinds of new possible development. The third key success factor is UT's international collaboration and a stronger role in the European research area.





Further Information

13. MONITORING AND EVALUATION

The main monitoring and evaluation mechanism in UT is a newly developed accreditation of entrepreneurial universities by ACEEU.⁸ The University of Tartu was selected to be one of the first 14 universities in the world where the accreditation process is carried out during 2017. The university has to produce a self-assessment report and this procedure has to be repeated every five years.

The UT strategy also includes its own key performance indicators. One of them is the share of courses with entrepreneurship orientation from overall courses, that is 2.6% at the moment and should be increased to 5% by 2020.

Another indicator is the amount of funding UT receives from additional resources apart from the governmental funding of research.

14. SUSTAINABILITY MEASURES

If UT is active in the area of entrepreneurship, it should expect more support from companies in the longer perspective. In this way, the university leaders consider that their development plan guarantees the best sustainability.

15. TRANSFERABILITY

The keys in the UT case are clearly defining the importance of entrepreneurial university in the Strategic Plan and introducing a special position of Vice Rector for Development in the top-level management, who is responsible for realising the concept of entrepreneurial university. These two concepts are easily transferable to other HEIs in different countries.

16. AWARDS AND RECOGNITION

UT belongs to the top 2% of world's best universities by ranking 347th in the QS World University Rankings 2016/17 and within the 301–350 range in the Times Higher Education (THE) World University Rankings 2016-2017. UT is placed 4th in the QS University Rankings: Emerging Europe and Central Asia (QS University Rankings: EECA). According to information on the ISI Web of Science, UT also belongs to the top 1% of the world's most-cited universities and research institutions in the fields of Clinical Medicine, Chemistry, Environment/Ecology, Plant and Animal Science, Geosciences, Social Sciences (general), Biology and Biochemistry and Engineering.

A total of 20 UT scientists belong to the top 1% of most quoted scientists in the world. Additionally, UT is among the top 20 desired employers in Estonia.

17. PUBLICATIONS AND ARTICLES

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18. LINKS

Strategic plan of the university: <http://www.ut.ee/en/university/strategy>

Web page of the university-business interactions and opportunities: <http://www.ut.ee/en/business>

The Adapter web page: www.adapter.ee coordinated by UT

General Information about UT: <https://www.ut.ee/en>



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- ¹ University of Tartu, Strategic Plan of the University of Tartu for 2015-2020 (pages 5-6): https://www.ut.ee/sites/default/files/www_ut/ulikoolist/tartu_ulikooli_aren-gukava_aastateks_20152020_a2020_eng.pdf
- ² University of Tartu, Strategic Plan of the University of Tartu for 2015-2020 (page 5): https://www.ut.ee/sites/default/files/www_ut/ulikoolist/tartu_ulikooli_arendukava_aastateks_20152020_a2020_eng.pdf
- ³ EDU& TEGU Programme, STARTER programme: <http://ettevotlusope.edu.ee/syndmus/mentorite-tagasiside-motiveeris-starter-programmi-noori-edasi-pingutama/>
- ⁴ For the activities you can visit Idealab web page: <http://www.ideelabor.ut.ee>, and Facebook page on the link: <https://www.facebook.com/groups/Ideelaborsocial/?fref=ts>
- ⁵ Start Up Day Estonia: <https://www.startupday.ee/#about>
- ⁶ Adapter: <https://adapter.ee/en/>
- ⁷ University of Tartu, Business, Continuing education: <http://www.ut.ee/en/business/continuing-education>
- ⁸ Accreditation Council for Entrepreneurial and Engaged Universities: <https://www.aceeu.org/>