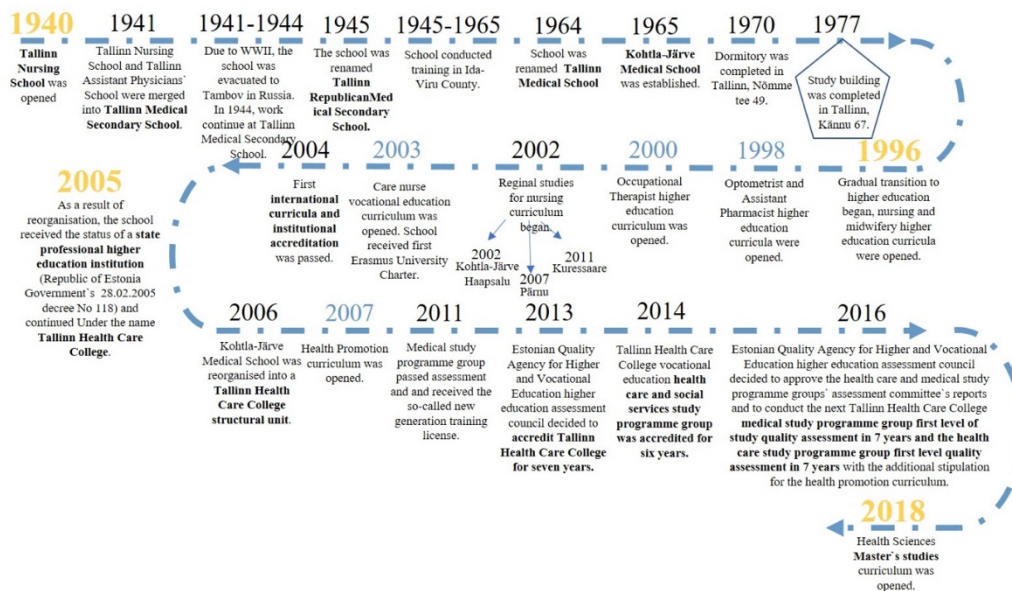


UASiMAP self-assessment report: Tallinn Health Care College



Section 1: General background and context

Tallinn Health Care College is an internationally recognized state professional higher education institution offering training in the field of health and well-being. The UAS was opened during the Soviet occupation under the name Tallinn Nursing School. At the time, the school offered vocational education; a transition to higher education began in 1996. The first international curricula and institutional accreditation was passed in 2004. Today, the UAS teaches nursing, midwifery, occupational therapy, optometry, health promotion, assistant pharmacists and dental technicians on a higher education level. In 2018, Health Sciences Master’s curriculum was opened. The UAS also operates a vocational education department, which trains care workers, emergency medical technicians, assistive technology specialists, client workers for people with mental health problems, sterilisation technicians, child minders and dental assistants. The second institutional accreditation was passed in 2020 with a worthy recognition in service to society.



Tabel 1 Number of students in higher education as of 10. November (Source: Haridussilm)

Institution (in original language)	Type of institution	2019	2020	2021
Tallinna Tehnikakõrgkool	State professional higher education institution	3 062	2 932	2 794
Tallinna Tervishoiu Kõrgkool	State professional higher education institution	1 596	1 600	1 621
Tartu Tervishoiu Kõrgkool	State professional higher education institution	1 155	1 193	1 273
Sisekaitseakadeemia	State professional higher education institution	586	580	647
Kõrgem Kunstikool Pallas	State professional higher education institution	303	330	335
Kaitseväge Akadeemia	State professional higher education institution	196	234	263
Eesti Lennuakadeemia	State professional higher education institution	244	250	247
Eesti Ettevõtluskõrgkool Mainor	Private professional higher education institution	1 508	1 636	1 499
EELK Usuteaduse Instituut	Private professional higher education institution	120	127	136
Eesti EKB Liit Kõrgem Usuteaduslik Seminar	Private professional higher education institution	55	64	61
Eesti Metodisti Kiriku Teoloogiline Seminar	Private professional higher education institution	61	54	56
Estonian Business School	Privately owned university	1 246	1 107	1 003
Tartu Ülikool	University under public law	13 165	13 449	13 733
Tallinna Tehnikaülikool	University under public law	10 105	9 863	9 068
Tallinna Ülikool	University under public law	7 033	7 122	7 150
Eesti Maaülikool	University under public law	2 808	2 962	2 974
Eesti Kunstiakadeemia	University under public law	1 211	1 215	1 209
Eesti Muusika- ja Teatriakadeemia	University under public law	586	541	542
	Total	45 178	45 259	44 611

Tallinn Health Care College is the second largest state professional higher education institution, where the number of students in higher education makes up 4% of the total study events in higher education in Estonia. All the curricula at the College have been specialized in health care area of study. There are also specialities that are unique to the College: optometrist, occupational therapist, dental technician and assistant pharmacist.

Currently, most of the students in higher education are studying in Tallinn. Still, we have study-groups also in Kohtla-Järve (general nurse and occupational therapy), Kuressaare (general nurse) and Pärnu (general nurse). The majority of students study nursing, 68% of all the students study in the curriculum of General Nurse. From 2018/2019 academic year the College opened its first curriculum at Master`s level, where students can choose between 4 specialisations: intensive nursing, clinical nursing, mental health nursing and health nursing. At the beginning of the academic year 2021/2022, the College welcomed the first English study group to Assistant Pharmacist curriculum.

Kohtla-Järve structural unit has long held a strong position in providing studies in nursing at study level 6 and care worker at study level 4 (vocational studies). From the academic year 2020/2021, a group of occupational therapists started their studies in this region. It was a joint effort of representatives of the field, the College, local organisations and institutions from the region who saw the strategical necessity to provide studies locally in order to motivate the much needed specialists in occupational therapy to study and work in North-East part of Estonia. The same principle of necessity of regional engagement, employability and sustainability has been carried out with nursing studies in Kuressaare and Pärnu. Cooperation with local hospitals have provided the study environment and conditions in order to support the quality of the studies. Students study at the premises of the hospitals and they are also

given the opportunity to do their practical training there. The form of study is still day-time studies, but the studies are divided into study cycles spread through-out the semesters.

Tabel 2 Number of students as of 10. November 2021 and the share of students by curriculum and study level (%)

EHIS code	Curriculum	2021/2022	% of Total
Professional Higher Education programmes		1513	93%
1477	Assistant Pharmacist	102	6%
214475	Assistant Pharmacist (in English)	11	1%
80166	Dental Technician	26	2%
1479	Optometrist	59	4%
3311	Occupational Therapist	63	4%
80997	Health Promotion	53	3%
1467	General Nurse	1095	68%
1470	Midwife	104	6%
Master`s programmes		108	7%
194200	Health Sciences	108	7%
Total		1621	

Even though workplace-based form of study has been successfully carried out at vocational education levels, the College took up an opportunity in piloting first ever workplace-based study form at higher education level. The piloting took place in 2017-2020 under the project “Tööturu vajadustele vastava kutse-ja kõrghariduse arendamine” ([final report](#), et) funded by the European Social Fund. In the end, in 2021, 14 occupational therapists graduated. This piloting gave valuable input for further developments in this kind of study form where students study at the same place where they work.

On 13 April 2022, the UAS employed 176 people. The number of teaching staff is boosted by casual staff, often practising health care professionals. The UAS functions in close cooperation with the state, aiming to fill the needs of Estonian health care sector. Many programs have been devised to respond to the urgent needs and possibilities in the society. For example, a specific program is aimed at practising nurses who studied prior to 1996 and wish to upgrade their vocational degree to a BA. Active RDI development in cooperation with regional public and private organisations is also inscribed in the strategic development plan (Appendix 1 and 2).

- For this project we defined ‘region’ as the entire country of Estonia. Our UAS is one of only two specialised health care colleges that train health care specialists in Estonia. There are several degrees that are taught solely at Tallinn Health Care College. Therefore the UAS has a duty to consider the development of health care in the entire country.
- Innovation was defined as any positive change that results from evidence-based research or cooperation between UAS and regional actors.
- Impact was defined as any influence or directed activity or action.

- Regional innovation is inscribed in the core values of the UAS: as this project defines 'regional' as the entire republic of Estonia, national cooperation means cooperation with regional agents. Similarly, innovation is one of the core values.

Section 2: RII data and information and data

2.1 UASiMAP dimension 1: Providing capacity for regional strategies development

2.1.1 Pre-selected quantitative indicators

1a: Non-teaching and non-research staff involved in initiating or supporting innovation-related cooperation with local or regional partners: number of staff AND/OR % of all administrative staff

The relevant statistics have not been collected by the UAS.

1b: Innovation development agreements or contracts with external local or regional partners: number AND/OR % of all agreements/contracts with external local or regional partner

number of agreements/contracts with external local or regional partner: see table below

% of all agreements/contracts with external local or regional partner: see table below

Table 3. Number of innovation agreements/contracts with regional partner and the share of all cooperation agreements/contracts 2019-2021

	2019	2020	2021
Number of contracts related to Estonian institution / organization which are related to innovation (excluding contracts concerning vocational education only)	13	13	6
Share of contracts related to innovation from all contracts related to at least one Estonian institution (excluding contracts concerning vocational education only)	81%	76%	75%
Platform ADAPTER	0	0	1
Project „Õed tagasi tervishoidu“ (in English Nurses back to health care system)	0	0	1
Elective course(s) / pre-vocational training in upper secondary school	3	2	2
Agreement for development cooperation between higher education institutions / institution(s) / organization(s)	5	4	1
Research and cooperation related to research	2	2	1
One-time event project	0	1	0
Opening / continuing studies in a sub-region	1	2	0
Joint project with an institution in Estonia which is aimed for an international project	1	0	0
The right to prescribe technical aids, course implementation in the curricula	0	1	0
Opening of a doctoral study placement in cooperation with the university	1	1	0

The number of contracts in a given year refers to the number of contracts signed in the reference year.

1c. Funding from external local or regional sources of innovation-related work: amount of funding AND/OR % of total external funding from local or regional sources

There is no funding scheme that would correspond to this indicator.

2.1.2 Narrative

In the years 2019-2021 most of the signed cooperation contracts served an innovation related purpose. The cooperation has been set in place between one or more institutions/organizations. For example the platform ADAPTER includes currently 18 members. ADAPTER aims to connect Estonian research and development community to any kind of company or organization looking for support in developing a new product or service, needing an analysis or searching for a ready to use method or service.

Every now or then in cooperation with the Ministry of Social Affairs a group of nurses have been admitted to an in-service training course (et). This project aims to offer people who haven't worked in the health care system as a nurse for a long time to prepare them for the theory and practical exam in order to restore their vocation in the National Register of Health Care Professionals. From 2021 project additional 15 nurses successfully completed the course. First project was executed in 2015 and over the years there have been 145 graduates (et) so far.

For supporting young students in upper secondary school in their career path choosing elective courses have been prepared and taught in different gymnasiums. Some of the contracts also include the cooperation and participation from an institution in the work field, e.g. the hospital. The 7 contracts put in force in 2019-2021 include the following schools located either in Harju or Ida-Viru county: Tabasalu Gymnasium, Sillamäe Gymnasium, Jõhvi Gymnasium, Arte Gymnasium, Kohtla-Järve Gymnasium and Old Town Educational College.

The cooperation agreements aiming for different developmental activities include cooperation with institutions, companies, organizations or unions. Some of them may include the aim to find joint research opportunities, but the concrete research topics have been put in place in separate agreements.

As mentioned in the introduction different study groups have started their studies in different parts of Estonia. In 2019 students in general nurse began their studies in Kuressaare (in cooperation with Kuressaare Hospital and Estonian Nurses Union) and in 2020 in Pärnu (in cooperation with Pärnu Hospital and Estonian Nurses Union). Also, in 2020 first occupational therapy students started their studies in Kohtla-Järve (cooperation with Ida-Viru Central Hospital, Estonian Association of Occupational Therapists and Kohtla-Järve City Council).

During the years, as the needs in health care system evolve, the profiles of health care professionals inevitably change. Long processes of negotiations and cooperation between different parties and levels have resulted in broadening the responsibilities and the job profiles. From 2021 graduates (General Nurse and Midwife) will have the right to prescribe technical aids. Both Tallinn and Tartu Health Care Colleges have added the course from Social Insurance Board both to the nursing and midwifery specialities.

2.2 UASiMAP dimension 2: Developing talents, skills and competences reflecting regional needs

2.2.1 Pre-selected quantitative indicators

2a. Students in internships in the local or regional business sector: number AND/OR share of all students

	2019	2020	2021
Semesters on which the result of the practical training is based	18/19 S + 19/20 A	19/20 S + 20/21 A	20/21 S + 21/22 A
Number of students 01.01	1519	1585	1606
The number of persons added 01.01-31.12	528	507	495
Number of persons who studied less than 182,6 days	30	20	38
Duplicate IDs	15	10	13
Number of distinct persons 01.01-31.12	2002	2062	2050
Distinct no of persons completing at least one practical training with a positive result	1081	1089	1198
% of all students	54%	53%	58%

S- spring semester; A – autumn semester. The number of students in practical training (distinct IDs) during one calendar year does not include data on RPL or incoming/outgoing exchange students. The number is based on the results in a given semester or semesters when a practical training subject was declared, and the positive assessment formalized. In accordance with the academic regulations, where one can pass one subject 3 times with previous failure then the number of students who have done their internships reflects the results from the information systems at the time of data query. As a rule, the practical training starts from the second study semester, so all the students who have been exmatriculated during the first 6 months of their studies have been excluded from the target group.

2b. Teaching staff with an entrepreneurial background in the local or regional business sector: number of staff AND/OR share of all teaching staff

number of staff: 49

% of all teaching staff: 54%

Due to the specificity of health care as a field, we have defined ‘entrepreneurial background’ as any employee who would work in private or public sector outside the UAS, as there are a number of different fields where they may promote regional innovation: health care, education, local government, enterprises.

This data has not been systematically collected so far and is based on the estimates provided by the heads of curricula. Out of 90 teaching staff, approximately 49 work elsewhere in the private or public sector within Estonia.

2.c Alumni in recent 3 years finding jobs in the local or regional business sector within a few years after graduation: number AND/OR share of all recent alumni

Table 4 Employment of graduates a year after their graduation 2017-2019

Graduation year	2017	2018	2019
Employment status	2018	2019	2020
Graduates	382	324	331
Employment	361	304-305	307-308
Share of employment	95%	94%	93%

Source: Estonian Ministry of Education and Research. The Estonian Ministry of Education receives information on the status of the graduates from the Statistics Estonia. The data is divided between different statuses: unemployed, only studies at lower level, studies at lower level and employed, only studies at higher level, studies at higher level and employed, employed, parental leave or in military service, abroad, unknown. If there were less than 3 graduates per one status, then it was marked X in the data, if there were less than 5 graduates per one status, then it was marked <5. Therefore, the sum of employment may include minimum and maximum values. The table shows the data on statuses regarding employment.

The share of employment has been above 90%. The share of unknown statuses has been 2% every year. The number of people who has been stated as abroad has been less than 3 for 2017 and 2018; less than 5 for 2019. There has been a slight rise in people whose status was “parental leave or in military service” from 2% (2017-2018 graduates) to 5% (2019 graduates). As the practical training is an important role of the studies and the students spend a fair amount of their time at different institutions then there is a bigger probability to start working already during their studies.

2.2.3 Narrative

As we defined ‘region’ as the entire country of Estonia, local or regional business sector would cover the entire republic. Due to the specificity of health care education, all the students in UAS undertake several traineeships during their studies. For that reason the only alternative to completing a traineeship in the local/regional sector would be passing it abroad. The fact that virtually every student gains experience and connections to regional health care sector allows them to build future connections to their field of work and increases the likelihood that they would continue their career in the chosen field, in Estonia.

Practical training in all the curricula in higher education plays an important role for the studies. The volume of practical training in different specialities comprises 17-43 % from the total volume of the curriculum ranging from 15 ECTS to 111 ECTS. The practice can be done across the nation and in all the institutions that met the quality criteria for the outcomes and guidance of the students. Some of the students may choose to make some part of their internship abroad. At the same time the college accepts international exchange students and helps them to find a practical training base in Estonia. As a result, exchange students bring the diversity of the training experience also to the institutions.

Every year at least half of the students from the College successfully complete at least one practical training starting from their second study semester. The share of the students doing their practice in the institutions is expected to rise in the coming years as there is a continuing

need for specialists in the health care sector. This requires even more intensified cooperation between the College and the institutions across the nation.

Leadership/entrepreneurship knowledge and skills is a part of every curriculum in the College. In order to support entrepreneurship among students even more, project-based practical training was implemented into 4 curricula (from 2017): occupational therapy, health promotion, general nurse and midwife. Within the last 3 years, 616 students have completed this type of internship. Depending on the project and the student's interests, this type of internship gives an added value both to the College or the society. Many of the projects are executed in the community providing different outputs among different age-groups. Starting off with teaching the importance of hygiene in the kindergarten, first aid training in different organisations and events, organising health days for the elderly. In addition, for example health promotion students have done risk analysis in different enterprises, occupational therapist students have organised group events with specificity related activities in rehabilitation day-centres according to the target group (e.g. elderly, people with intellectual disabilities etc.), midwife students have conducted lessons on reproductive health topic among high school pupils, etc.

COVID pandemic has pushed the limits in every aspect of the society. The health system has taken a heavy toll. From the onset of the pandemic, the College as a whole has contributed a lot of time and effort to support the health care institutions across the country. The College has reorganised practical training in order to send more students to the institutions during high peaks of the spread of the disease. Volunteering has been a big part of the help. If students have done any volunteer work during these times, the College has offered the chance to recognise it as part of their practical training where ever the volunteer work matches the outcomes of the internships.

The regional dimension in teaching is further strengthened by joint projects with regional hospitals. For example, nursing is taught at Pärnu hospital, a major city in Southern Estonia that lacks a local nursing college. The students also work at the local hospital and the local nursing staff contribute to the teaching. As the project has been running for several years, by now the alumni of the same teaching project are now also involved in teaching, which helps to strengthen the connections between teaching, students, staff and regional needs.

As there is a shortage of trained health care professionals, most alumni find work rather easily. A number of students relocate abroad and are therefore not considered when looking for a job in the regional economy.

2.3 UASiMAP dimension 3: Domain: Promoting regional development through use-inspired research, development and innovation

2.3.1 Pre-selected quantitative indicators

3a. RDI-active staff engaged in active innovation-related cooperation with local or regional partners: number AND/OR share of all staff

% of all staff: 100% of teaching staff

As we have defined any research as innovation and applied research involves some form of cooperation with local/regional partners, any research also counts as innovation-related cooperation. As the RDI-active staff is contractually obligated to carry out research, any research they carry out is therefore active innovation-related cooperation with regional partners.

3b. Physical space for RDI workplaces (such as 'laboratories', 'living labs' and 'innovation centers'): amount of space (square meters) AND/OR number of facilities

amount of space: 1206 m² in total

number of facilities: 32 different facilities

The different research facilities include 8 laboratories, 6 pharmaceutical laboratories and 14 simulation rooms in Tallinn and 1 laboratory and 3 simulation rooms in Kohtla-Järve. Sizes of workplaces can be found in section 4.

3c. Joint research publications with local or regional partners resulting from RDI: number AND/OR share of all research publications

number of joint research publications with local or regional partners:

2019 – 26

2020 – 9

2021 – 21

Unfortunately there is no data on all research publications.

2.3.3 Narrative

RDC at the College is based on the Institutions of Professional Higher Education Act, the College's Statutes, Development Plan and Regulation of Development Work. The objective of development work in cooperation with partners is to develop students by involving public health needs-driven areas and areas necessary for the society and the College. The applied

research and research and development working group RUTA has been formed to coordinate RDC activities. RUTA organises trainings, research work competitions, advises in applied research and publication of research articles. The College and structural units` development plans outline targeted RDC activities and their fulfilment is addressed in annual reports.

RDC planning proceeds from the College`s resources, objectives, needs of target groups, national and sectoral strategies. For example, the Public Health Development Plan 2009-2020. The College has provided its input to the Public Health Development Plan 2020-2030. The College works with professional associations, employers and other higher education institutions to identify the necessary research areas and directions to develop labour market segments in order to conduct corresponding applied research. For this aim, research groups have been formed, and members include not only College teachers and students but also representatives of the contracting entity. For example, the Chair of Nursing has conducted commissioned applied research for Tallinn Children`s Hospital and currently, research is being conducted for Tallinn East and West Central Hospital. 25% of the lecturers (as of 31.12.2018) are involved in national and international development activities and projects.

The College organises several healthcare-related conferences, for example “Approach to bedsores- prevention and conservative treatment” (2017), “About research cooperation” (2017), “E-options in health care and social welfare” (2017), “Application of nursing diagnoses in nursing education and practice- Outlook and opportunities” (2017), “Domestic violence in a changing world” (2017), Nordplus international conference (2018), “*Study Quality in Terms of Multiculturalism in the Baltic Countries*” (2018), “Roles of an Occupational Therapist – ideals and reality” (2018), and student conference “From student to student”.

The Chair of Nursing has been organising an international nursing diagnoses` research conference since 2015 (in 2015, 2017, 2019), and from 2017, it has been organised as a joint conference with the North Estonian Medical Centre.

Employees are involved in professional associations` development plans and strategy composition working groups, which provides a good opportunity to develop and enhance research and development directions. Teachers participate as experts in different national and international committees and working groups.

The College cooperates with other research institutions, for example the herbariums put together by Pharmacy curriculum students have been added to the Estonian Museum of Natural History science collection and has been handed over to the Tallinn Botanical Gardens` research collection.

High-tech simulation center has fostered cooperation with other universities. For example, a cooperation agreement with University of Tartu aims to develop teaching aids based on soft robotics that are used in simulation training for healthcare professionals. Cooperation

agreement with TalTech sees as one part of cooperation the content to provide TalTech employees and Master`s level students with access to the simulation center and simulation center computers to help develop the simulation's digital capabilities, create a simulation database, and learn about treatment processes at different levels and digital technologies in the treatment environment.

2.4 UASiMAP dimension 4: Enhancing civic, social and community engagement

2.4.1 Pre-selected quantitative indicators

4a. Number of public lectures or presentations (online or physical) for local or regional

x Don't know, not sure

4b. Number of school projects (primary or secondary education level) in city or region

School projects: Contracts with 4 general education schools in Tallinn and 2 general education schools in Ida-Virumaa county. Separate courses for students in grade 10, grade 11 and grade 12 in each school. 18-40 students in one course. In autumn 2021 was participating 399 students from various general education schools participated in health care elective courses. The program includes theoretical classes, practical seminars in college and practical training in hospitals. (See also chpt 2.1.1)

4c. Number of exhibitions (co)organized specifically for local or regional audiences

x Don't know, not sure

2.4.2 Self-selected optional quantitative indicators

4d. Number of activities directed towards the wider audiences

Quantity: 121 in 2019, 32 in 2020, 25 in 2021

2.4.3 Narrative

The statistics of the UAS do not differentiate between exhibitions, public lectures, presentations or other events or activities directed at the wider audiences, thus we have inserted our own indicator: 'activities directed towards the wider audiences'.

In 2019 there were a total of 121 events with 7993 participants. The events could be divided into 3 categories: cooperation, events introducing UAS and health education. Especially the 25 cooperation events illustrate successful regional collaboration with other enterprises or institutions. 20 activities introduced UAS and its curricula, of which 9 were excursions. 79 events focused on health education, of which 35 were educational training events, 23 were

'health days', 12 were lectures (including conferences and public debates) and 9 were public events for measuring health indicators.

In 2020 there were a total of 32 events with 4163 participants. 11 of these were cooperation events, including public conferences, 3 were events aimed at introducing the UAS and 18 events focused on health education. Of these 18, 9 focused on teaching first aid and 6 were public lectures on stomatology.

In 2021, due to the ongoing pandemic, there were only 25 registered events with 1530 participants aimed at general audiences, as the resources of the UAS were largely directed towards contributing to vaccinations and other necessary activities. Out of these 25 events, 18 were public lectures or educational events, which included 11 lectures to senior citizens on the subject of mouth hygiene, 3 focused on teaching first aid and 2 on using contraceptives. The other events included a radio program on healthy diet, participation in a simulation aimed at ambulance workers, making educational videos for Estonian Rescue Board and for the International Week of the UAS, a series of health-themed posts in the social media of the UAS and organising a conference on chronic ulcers.

Section 3: Future developments and prospects

During the writing period of this report the development plan for the next 5 years is in progress. The College continues to align its future developments and trends according to the prospects lined and set out by the state among others. Future trends in employment see a growing need for health care professionals (see [OSKA key findings](#)) and in cooperation with different parties the admission is set to be increasing in the coming years.

To meet the needs of different skills, the continued work with the labour world, alumni, students and unions of different occupations will ensure graduates with necessary skills. Digital skills are the major focus in every field and curricula are under continuous investigation and development in order to meet the needs of the labour market.

The College also sees more intertwined RDI activities across all the curricula. For example, more applied research projects that involve more students, academic staff and partners across Estonia. The evolution of the support system of these activities is taking an agile approach to ensure the success of the outcomes in very fast changing and challenging conditions. Still, the system lies on solid pillars of provision and goals to guarantee sustainability and directions for improvement and innovation. The same principles apply to service to society targeting all age groups.

In order to tackle the crises in hand and ahead, intensified cooperation has already been employed and will continue to be important. The communication and collaboration between the local and regional partners will support a unified and a strong society to overcome any obstacles ahead. The central core value of the College is people and it will keep be the highest value on which the institutions` work is based on.

Section 4: Additional background information

2.3b. Physical spaces for RDI activities

Kännu			Kukruse		
1	laboratory	51.8 m2	1	laboratory	11.1 m2
2	laboratory	53 m2	2	sim room	76.1 m2
3	laboratory	23 m2	3	sim room	51.1 m2
4	laboratory	34.2 m2	4	sim room	50.4 m2
5	sim room	56.4 m2			188.7
6	sim room	52 m2			
7	sim room	35.4 m2			
8	sim room	27.6 m2			
9	sim room	25.1 m2			
10	sim room	37.5 m2			
11	sim room	25.7 m2			
12	sim room	31.3 m2			
13	sim room	53.3 m2			
14	sim room	17.9 m2			
15	sim room	36.9 m2			
16	sim room	9.6 m2			
17	sim room	35.8 m2			
18	sim room	9.5 m2			
19	laboratory	17 m2			
20	laboratory	52 m2			
21	laboratory	34.5 m2			
22	laboratory	69.2 m2			
23	Ph lab	22.9 m2			
24	Ph lab	9.5 m2			
25	Ph lab	56.1 m2			
26	Ph lab	28.8 m2			
27	Ph lab	74.3 m2			
28	Ph lab	37.2 m2			
		1017.5 m2			