

RE-EVALUATION OF STUDY PROGRAMME GROUPS

ASSESSMENT REPORT

INSTITUTION OF HIGHER EDUCATION: Tallinn University of Technology (TalTech)

<b>STUDY PROGRAMME GROUP</b>	<b>Architecture</b>
<b>STUDY</b>	study in professional higher education
	Bachelor's study
	Master's study
	<b>X</b> integrated study
<b>STUDY PROGRAMME</b>	<b>Architecture</b>

**ASSESSMENT COMMITTEE:**

Philippe Bouillard (Chair), Professor, Université Libre de Bruxelles, Belgium  
Katharine Heron, Professor Emeritus, Architect, University of Westminster, United Kingdom  
Matti Rautiola, Professor (retired), Architect, Tampere University of Technology, Finland  
Piia Markkanen , PhD student, Oulu School of Architecture, University of Oulu, Finland

**PERIOD OF EVALUATION: From January to March 2019**

**DECISION OF ASSESSMENT COMMITTEE:**

COMPONENT ASSESSMENT AND CONFORMITY TO REQUIRED STANDARD:	CONFORMS TO REQUIREMENTS	PARTIALLY CONFORMS TO REQUIREMENTS	DOES NOT CONFORM TO REQUIREMENTS
Quality of conducting studies	<u>X</u>		
Resources	<u>X</u>		
Sustainability		<u>X</u>	
<p><b>Comments:</b></p> <p>The Assessment Committee (hereafter, the Committee) acknowledges the significant and relevant changes implemented by the Academy of Architecture and Urban Studies and the Department of Civil Engineering and Architecture to address most of the issues revealed by previous assessments.</p> <p>The objectives and mission of the study programme have been revised to reflect the labour market needs and be aligned with TalTech strategy. The module learning outcomes have been developed consistently with the programme ones. The integration between architecture and engineering has been significantly improved leading to uniqueness of this Master of Architecture in Estonia.</p> <p>Changes have been made in new staff appointments to increase numbers with PhD and Architects registered level 8. In addition, there is an ongoing process of Staff Competence Development. It has already resulted in ongoing research projects and the Committee encourages the Academy to further develop their research activities.</p> <p>All the changes have been implemented with the clear engagement of the academic staff, the students and the external stakeholders. In particular, there is now a programme committee fully operational. It has been enabled through effective leadership, and good engagement of all stakeholders.</p> <p>Adequate resources (staff, facilities, equipment) are available to deliver this programme.</p>			

The collaboration with external stakeholders remains, however, fair, in particular with the Estonian Academy of Arts, and needs further plan of concrete actions.

In terms of sustainability, there is still need for strategic planning and plans to secure research funding. A very positive tenure-track system has, however, been adopted for future professor positions. The number of graduates is low considering the resources allocated to the programme but the trend could not be accurately assessed since the integrated programme started only in 2013. The quality assurance would gain of improving consistency in all activities. It also requires introducing systematic risk management.

**SENT TO EKKA : 8/3/19**

**SENT TO THE INSTITUTION UNDER EVALUATION: 14/3/19**

**RECEIVED THE COMMENTS OF THE INSTITUTION UNDER EVALUATION: 21/3/19**

**ASSESSMENT COMMITTEE CONSISTING OF THE FOLLOWING MEMBERS:**

Philippe Bouillard (Chair), Professor, Université Libre de Bruxelles, Belgium

Katharine Heron, Professor Emeritus, Architect, University of Westminster, United Kingdom

Matti Rautiola, Professor (retired), Architect, Tampere University of Technology, Finland

Piia Markkanen , PhD student, Oulu School of Architecture, University of Oulu, Finland

**APPROVED THE FINAL VERSIONS OF COMPONENT ASSESSMENTS: 4 VOTES IN FAVOUR AND 0 VOTE AGAINST**

**SENT TO THE QUALITY ASSESSMENT COUNCIL FOR HIGHER EDUCATION: 25/3/19**

**1. ASSESSMENT OF QUALITY OF CONDUCTING STUDIES**

**1.1. Requirements for study programmes and learning outcomes**

REQUIREMENTS	EVIDENCE GATHERED	COMMENTS
<p>A study programme is in line with the areas of activity of the educational institution based on the development plan or statutes of the institution. A study programme contributes to fulfilling the mission of the educational institution and to achieving its goals.</p>	<p>Report for Re-Assessment.</p> <p>Meetings with Rector, management staff, academic staff and students.</p> <p>Presentation made by Prof Kimmo Lylykangas, Head of Academy of Architecture and Urban Studies.</p> <p>Student work from first year to thesis phase displayed extensively.</p>	<p>The Committee commends the substantial improvements made since the previous assessment and that real effort has been made with energy and ambition.</p> <p>The Committee also notes that in all the meeting groups, participants were aware of the development plans of the institution, and that the newly re-developed study programme sets out to fulfil the educational institution’s mission and to achieve its goals.</p> <p>Despite of the fact that the new study programme has been in effect for a few months only, the results of the student work have improved significantly from the 2017, because of the ambition to respond to the given criticism in the previous assessment, but also because of the new programme. The Committee notes that solutions based on building technology were integrated already in early project work.</p> <p>The staff and students were actively engaged in the curriculum development with a committee that was said (by students) to be very responsive to comment and input. The other stakeholders were less active in this area, and the alumni group had less opportunity to be involved by virtue of timing. It is expected that both groups will engage more as the new programme rolls out.</p>

<p>A study programme takes into consideration the needs of the labour market and the target group.</p>	<p>Report for Re-Assessment.</p> <p>Meetings with Rector, management staff, academic staff and students.</p> <p>Presentation made by Prof Kimmo Lylykangas, Head of Academy of Architecture and Urban Studies.</p> <p>Meeting with external stakeholders.</p>	<p>The management and the academic staff provided convincing responses to questions about being forward looking and providing for the future labour market and societal challenges - this included skills in relation to energy consumption, climate change, digitalisation, demographic trends, urbanism and landscape as well as architecture and urbanism. They also recognised innovation and being specific to northern Europe and the Baltic as essential to the future labour market.</p> <p>The description of Strategy Workshops for strategy building is to be commended having involved all academic staff.</p> <p>The new curriculum introduced in 2017 addressed the previous concerns about balance of engineering subjects.</p> <p>The stakeholders were satisfied with the present skills and competences of the students and graduates. They did not have evidence yet of the new programme as it has been in use for such a short time.</p>
<p>The title of a study programme is consistent with the content.</p>	<p>Meeting with management staff and response by Prof Kimmo Lylykangas.</p>	<p>The Committee queried whether the study programme and its resultant Diploma (level 7) , should seek to be recognised by the competent authority in accordance with the EU Directive. The Head of Arch and CE confirmed that this was intended, and approaches had already been made to the Ministry. The Committee encourages this to be pursued in order to ensure that the graduates are not disadvantaged in comparison with competitors, and to facilitate movement between EU states.</p> <p>The Committee commends the improvements made in response to the previous report and confirms that the title of the programme is consistent with the content.</p>

<p>The study methods used and the conduct of studies, including the load of independent work and work practice, support achievement of the objectives of the study programme.</p>	<p>Report for Re-Assessment, visit to the department, studio works, cooperation with the Engineering Dept.</p>	<p>The curriculum comprises courses and a capstone, as well as design studios i.e. project work. The effective workload of the studio work usually outreaches the hours specified in the programme and should still be better monitored making use of the newly available workload app.</p> <p>The Committee saw examples during the visit and tour, that confirmed the reassessment report stating that the engineering training was better integrated. The programme is now benefitting from the technical expertise and facilities available at TalTech. The Committee observed determined improvement from the previous assessment.</p>
<p>The objectives and learning outcomes of a study programme are formulated in such a way that they provide a basis for evaluation of the knowledge and skills of graduates of that study programme.</p>	<p>Report for Re-Assessment, Annexes à2-5 &amp; 02-6, visit to the department, studio works.</p>	<p>The objectives and learning outcomes provide a sufficient basis for evaluation of the knowledge and skills of graduates.</p> <p>The Committee was satisfied that the evidence supported this, and that students as well as academic staff understood the learning outcomes. A very positive aspect related to the architectural and urban studios is that the progression in complexity was clearly identified.</p>
<p>The objectives and learning outcomes of a study programme are equal and comparable to the learning outcomes of a given cycle of higher education described in Annex 1 to the Standard of Higher Education.</p>	<p>Report for Re-Assessment, module descriptors.</p>	<p>This area was considered satisfactory previously and continues to be so.</p>

<p>The objectives and learning outcomes of a study programme meet the requirements and trends of international legislation that regulate the professional field.</p>	<p>EU Directive 2013/55/EU  Report for Re-Assessment, Annexes 02-5 &amp; 02-6.</p>	<p>The eleven points of the EU Directive are set out and included as learning outcomes, and all are covered by several compulsory or core learning courses, with increasing levels of complexity. In addition, the Professional traineeship requirement as attested in the Annex.</p>
<p>If a professional standard exists, the objectives and learning outcomes of a study programme take into consideration the acquisition and implementation of the knowledge and skills described therein.</p>	<p>Professional standard of a diploma architect, level 7.</p>	<p>The University currently may award primary qualification, diploma architect, level 7. The curriculum is designed to also meet the minimum requirements of the EU Directive, and intends that this Diploma will be included by the Competent Authority as a named approved qualification. Achievement of this will make TalTech on a par with competitor courses in Estonia.</p>
<p>Work practice that is necessary for achievement of learning outcomes leads students toward acquiring and implementing efficient work methods.</p>	<p>Report for Re-Assessment, Annexes 02-1 &amp; 02-2.  Meetings with students and external stakeholders.  Work practice reports.</p>	<p>A great number of students appear to be working full time during their studies, which poses a serious concern towards their ability to fully follow and focus on course work but offer them a very good work practice.  Additional 12 ECTS work practice are included in the curriculum and the Committee gathered evidence with the students that it is delivering the expected learning outcomes.</p>
<p>Organisation of work practice is clearly regulated. The instructions for work practice are available and the</p>	<p>Meetings with students and external stakeholders.</p>	<p>The organisation of work practice is clearly regulated by the module descriptor and the agreement template with the companies. The supervision and assessment are made explicit to the students. The Committee gathered evidence of satisfaction about the internship both from the students and from</p>

supervision of students in work environment is ensured. The requirements for the completion of work practice are determined.	Work practice reports.	the external stakeholders.
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<b><u>1.1. Requirements for study programmes and learning outcomes</u></b> <b><u>- ASSESSMENT SUMMARY</u></b>	<b>Conforms to requirements</b>	Partially conforms to requirements	Does not conform to requirements
	<b>X</b>		
<p><b><u>Justification:</u></b></p> <p>TalTech is to be commended for the responses they have made to the previously raised concerns. This is evidenced by the programme changes made with the engagement by staff and students in the processes of developing and implementing proposals, and ongoing review. The Committee saw evidence of this at all levels and encourages the team to continue this for the full five-year cycle of students.</p> <p>The pin-up of student work witnessed about the methodologically determined approach, leading into project work with professional architectural ambition and integrated engineering knowledge makes the programme relevant for level 7 in higher education and opens the door for a European recognition.</p>			

**1.2. Study programme development and requirements for teaching staff**

REQUIREMENTS	EVIDENCE GATHERED	COMMENTS
Study programme development is a continuous process.	Report for Re-Assessment, new study programme,	TalTech have revised the programme twice recently. The continuous process of development was confirmed in meetings with staff and students.

	meetings with management, academic staff and students.	So far, the programme has been in effect for only a few months, but the plan is ambitious and determined.
Study programme development involves students and employers.	Report for Re-Assessment, meetings with management, external stakeholders and students.	A programme committee has been implemented and is operational. It involves academic staff, students and stakeholders. The involvement of the students has been clearly confirmed to the Committee during the visit, which could not be the case for the employers since the members of the Programme Advisory Committee were not available during the site visit.
Members of the teaching staff are aware of the objectives of a study programme and of their role in achieving these objectives.	Report for Re-Assessment, meetings with management, academic staff and students.	The Committee has observed a clear awareness of the programme objectives and the modules are now coordinated towards the programme learning outcomes. However, the Committee did not meet the academic staff in charge of the engineering modules and their awareness and engagement are still to be improved. In particular, the Committee regrets that the multidisciplinary studios, involving architect and engineer students, are currently only supervised by academic staff from the architectural department. Involvement of academic staff able to supervise the engineering and technical aspects of the corresponding projects is required to reach the objective of better articulation between architecture and engineering in learning.
An action plan to eliminate deficiencies of study programmes that have received a temporary right to conduct studies has been drawn and it is being implemented.	Report for Re-Assessment, Annex 01-1.	The department has clearly implemented major changes to address previous concerns. It has also drafted a plan of actions for future improvement. Some shortcomings related to effectiveness of the measures (integration between architecture and engineering; actual participation of the external stakeholders in the programme revision; ...) or sustainability (particularly in terms of research capacity) are, however, still to be improved.

<p>A feedback system (involving students, graduates, employers, teaching staff) is effective and its results are applied.</p>	<p>Report for Re-Assessment, meetings with academic staff and students, questionnaires.</p>	<p>A feedback system is now implemented and operational. The Committee gathered evidence of its effectiveness during the meetings with students and academic staff.</p>
<p>Qualifications of the teaching staff of a study programme group meet the requirements established in legislation as well as those arising from <u>the specifics of the study programme group</u>.</p>	<p>Report for Re-Assessment, meetings with academic staff.</p>	<p>The majority of teaching staff have practical and professional based qualifications (architecture at level 8) and come with active professional and practice-based engagement. They are experienced in teaching design studios. Engineering subjects are taught by other departments. The overall number of permanent staff and part time or visiting teachers is adequate in number and competence.</p>
<p>Members of the teaching staff have an adequate teaching competency.</p>	<p>Report for Re-Assessment, Annex 05-4, meetings with management and academic staff.</p>	<p>During the meetings, the Committee gathered evidence that the academic staff is maintaining personal pedagogical portfolios. These are then reviewed by their line managers and formed part of the regular review. This may lead to personal development plans.</p> <p>There is also a staff competence development plan ongoing, identifying the shortage of competences in some areas.</p>
<p>Members of the teaching staff participate in research and development (including applied research).</p>	<p>Report for Re-Assessment, meetings with management and academic staff.</p>	<p>Clear improvement has been made regarding research. A small team, including postdoctoral and doctoral fellows, has been set-up. A few research projects are already funded and ongoing. The contribution in research across the academic staff is clearly unbalanced. The Committee clearly encourages the department to expand their research and development activities.</p>

<p>Members of the teaching staff cooperate with stakeholders of the study programme group outside the educational institution (employers, professional and trade associations, higher education institutions conducting studies in the same study programme group and other institutions of research and development).</p>	<p>Report for Re-Assessment, Annexes 01-3 to 01-8 (support letters), meetings with management, academic staff and external stakeholders.</p>	<p>TalTech have gathered many support letters from external stakeholders. As already mentioned, there is a significant number of teachers with a professional practice. However, the Committee gathered little evidence during the meetings that actual collaboration was ongoing between TalTech and their partners, particularly regarding the research. The collaboration needs to be intensified and better integrated in the departmental research strategy. The intention of collaboration with the Estonian Academy of Arts has been renewed but needs urgent commitment to effective actions.</p>
<p>The staff development system is effective: members of the teaching staff have opportunities for self-improvement and self-development, regular development interviews are conducted and/or other staff development methods are applied.</p>	<p>Report for Re-Assessment, meetings with management and academic staff.</p>	<p>As already mentioned, each staff has an annual appraisal meeting with the line management. This discussion leads to personal objectives and development plans. During the meetings, the Committee gathered evidence that is was operational and development opportunities are available.</p>
<p>Visiting members of the teaching staff (including from foreign institutions of higher education) are involved in conducting studies in a study programme group.</p>	<p>Report for Re-Assessment, meetings with management and academic staff.</p>	<p>There are visiting teaching staff, and these tend to be located in specific interest areas which are not necessarily very integrated. Their involvement in the departmental life, including programme review, needs to be upgraded.  The agreed collaboration with other institutions offers opportunities to the students to register to some modules. This opportunity is, however, currently overlooked by the students and efforts need to be made to make this</p>

		measure effective.
Members of the teaching staff of an educational institution (in the field of study of a given study programme group) regularly further their skills at foreign institutions of higher education and participate in high-level conferences.	Report for Re-Assessment, meetings with management and academic staff.	In the meeting with academic staff, the Committee has been confirmed that they have access to foreign travel (with students) and to attend high level conferences. However, the academic staff should be encouraged to increase their participation in international (research, teaching or practice) stays to be continuously confronted to the state-of-the art.

<b><u>1.2. Study programme development and requirements for teaching staff</u></b> <b><u>- ASSESSMENT SUMMARY</u></b>	<b>Conforms to requirements</b>	Partially conforms to requirements	Does not conform to requirements
<p><b><u>Justification:</u></b></p> <p>There have been notable improvements from the previous assessment. So far, the programme has been in effect for only a few months, but the plan is ambitious and determined. A programme committee and a feedback system have been implemented and is operational. Clear improvement has been made regarding research by setting-up a small team of postdoctoral and doctoral fellows. The academic staff have clear opportunities of self-development, including their teaching abilities.</p> <p>This has been enabled through effective leadership, and good engagement with staff and students especially. They are fully aware of the processes and their sense of common purpose. The assessment committee wishes to encourage the institution ongoing support of this momentum. The collaboration with external stakeholders remains, however, fair and needs further plan of actions.</p>			

**1.3. Students**

REQUIREMENTS	EVIDENCE GATHERED	COMMENTS
<p>The entrance requirements for student applicants are based on qualities necessary for achievement of learning outcomes of a given study programme.</p>	<p>Report for Re-Assessment, Annex 01-1, meeting with management team.</p>	<p>The admission criteria of new students is based on applicant’s grade in state examination in Estonian language (minimum of 45 points) and mathematics (minimum of 50 points). Applicants who fulfil these criteria are tested in entrance examinations consisting of an essay, a drawing assignment, and an architectural composition assignment. Also, applicants are interviewed to test their motivation to study architecture in this study program. As the ratio of admitted students is high with respect to number of applicants, this is considered important by the management to select the most motivated candidates who are likely to complete the programme. As per their action plan (Annex 01-1), the study programme will document the admission process in English and add in the Quality handbook. Action plan entails a comparative analysis of admission requirements and successful study outcome in the programme.</p>
<p>The counselling system of students (study, career, psychological counselling) is effective.</p>	<p>Report for Re-Assessment, Annex 06-2, meeting with students,</p>	<p>Most of the counselling system for students is provided at the main campus of TalTech and there are two counsellors assigned for the Department of Civil Engineering and Architecture. Students consider the services easily reachable as they divide their time on both campuses. Furthermore, architecture students have also a student counsellor, who is located at the Tonismagi campus.</p> <p>Current Curriculum is relatively uniform. The study programme aims for more versatile curriculum in the future. Therefore, there will be growing importance in offering guidance for students in designing their personal study plans.</p>

<p>Student assessment supports learning and is in line with learning outcomes.</p>	<p>Report for Re-Assessment, Annex 02-5, meetings with staff and students, OIS Study information system at <a href="https://ois2.ttu.ee/uusois/uus_ois2.tud_leht">https://ois2.ttu.ee/uusois/uus_ois2.tud_leht</a></p>	<p>Learning outcomes and evaluation criteria for grading (scale 1-5) are documented and available in OIS database. Students are actively informed of learning outcomes and evaluation criteria. Students' progress is also evaluated and guided in studio courses during intermediate evaluations.</p> <p>Attention should be paid that all teachers and visiting experts, who are invited to assess the projects, are aware of the learning outcomes. Some visiting experts and teachers are involved in planning of the courses, during which process they define learning outcomes together with members of staff.</p>
<p>Students participate in international mobility programmes. The percentage of students participating in student mobility is growing.</p>	<p>Report for Re-Assessment, meetings with members of management, academic staff and students.</p>	<p>The participation of students in international mobility programmes has improved. Currently, approximately 1/3 of the students participate in ERASMUS programme. However, the mobility is directed only outside at the moment and no international students have participated in this study programme. Students' experiences have been mainly positive on participation. Although they have been able to transfer the earned study credits to their study plan, students experience some loss of time due to participation in mobility programmes. To prevent prolonged graduation times, the mobility requires detailed information and careful planning of learning agreement with target study programmes.</p>
<p>The educational institution recognises prior learning and work experience.</p>	<p>Report for Re-Assessment, meetings with the academic staff.</p>	<p>TalTech have established procedure to recognise prior learning and work experience. The programme director handles the application with the aid of experienced teaching staff.</p>
<p>Students are involved in the decision making process at different levels of the</p>	<p>Report for Re-Assessment, Annex 02-3, meeting with the</p>	<p>Four student members participate in Curriculum Development Committee. Importantly, their opinion and experiences are proactively considered. Furthermore, student feedback is carefully analysed and taken into account in</p>

educational institution.	students.	developing the teaching and curriculum. The students' time management for workload is monitored on voluntary basis using a mobile application Clockify. Changes have been made in the order of courses to improve students' competence to participate on more technical courses.
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<b>1.3. Students – ASSESSMENT SUMMARY</b>	<b>Conforms to requirements</b>	Partially conforms to requirements	Does not conform to requirements
	<b>X</b>		
<p><b><u>Justification:</u></b></p> <p>The programme in Architecture delivered by the Academy of Architecture and Urban Studies conforms to requirements.</p> <p>The study programme has an established procedure for admissions. Although the ratio of admitted applicants is high, the personal interview with applicants has proven to be effective in selecting motivated candidates.</p> <p>TalTech provide efficient student counselling system located at the main campus and a student counsellor located at Tonismägi campus. Altogether, this provides a system that efficiently supports students, who are well-informed of services.</p> <p>The learning outcomes and evaluation criteria are documented in study information system and they are actively discussed with students. This provides a strong basis on transparent assessment and grading of coursework. The study programme has an established and functional procedure to recognise prior learning and work experience.</p> <p>The number of students participating in mobility programmes has increased. To prevent prolonged study times due to mobility, care should be taken in planning the visits in terms of learning agreements.</p> <p>Students are actively taken into consideration in decision making process in Curriculum Development Committee. Students' experiences are carefully evaluated and used to develop study plan.</p>			

1. <u>QUALITY OF CONDUCTING STUDIES - ASSESSMENT SUMMARY</u>	Conforms to requirements	Partially conforms to requirements	Does not conform to requirements
<p><b>Justification:</b></p> <p>TalTech is to be commended for the responses they have made to the previously raised concerns. This is evidenced by the programme changes made with the engagement by staff and students in the processes of developing and implementing proposals, and ongoing review. The Committee saw evidence of this at all levels and encourages the team to continue this for the full five-year cycle of students.</p> <p>The pin-up of student work witnessed about the methodologically determined approach, leading into project work with professional architectural ambition and integrated engineering knowledge makes the programme relevant for level 7 in higher education and opens the door for a European recognition.</p> <p>The study programme has an established procedure for admissions and TalTech provide efficient student counselling system located at the main campus.</p> <p>The learning outcomes and evaluation criteria are documented in study information system and they are actively discussed with students. This provides a strong basis on transparent assessment and grading of coursework.</p> <p>All this has been enabled through effective leadership, and good engagement with staff and students especially. They are fully aware of the processes and their sense of common purpose. The assessment committee wishes to encourage the institution ongoing support of this momentum.</p> <p>The collaboration with external stakeholders remains, however, fair and needs further plan of actions.</p>	<p><b>X</b></p>		

**2. ASSESSMENT OF RESOURCES NECESSARY FOR CONDUCTING STUDIES**

**2.1. Requirements for teaching staff**

REQUIREMENTS	EVIDENCE GATHERED	COMMENTS
<p>The number of <b>ordinary teaching and research staff</b> who comply with the qualification requirements that are established by legislation and arise from the specifics of a study programme group (based on their responsibilities, the volume of conducted studies and the number of supervised students) <b>is adequate</b> for achieving the objectives and learning outcomes of study programmes in a given study programme group.</p>	<p>Report for Re-Assessment, Section 5 and Table 7, meetings with management and academic staff, presentation made by Prof Kimmo Lylykangas "General requirements to the medical, veterinary, pharmacy, dentistry, midwives, nursing, architectural and engineering studies" (Government Decree, Estonia) in Riigi Teataja (<a href="https://www.riigiteataja.ee/akt/112012016017?leiaKehtiv">https://www.riigiteataja.ee/akt/112012016017?leiaKehtiv</a>)</p>	<p>The programme is run by the Academy of Architecture and Urban Studies which includes 7 professors ( whose 2 hold a PhD), 3 postdoc researchers and 4 additional international guest professors. The Committee noted an increase in teaching staff with PhDs since the previous assessment and acknowledge the professors with architectural practice.</p> <p>The proposal to recruit two new professors in subject areas where there is deficit, is to be encouraged. University administration has given support to advance the development of the necessary resources.</p> <p>As TalTech intend to recruit the best practitioners in teaching, use of part-time agreements is justified. Still, the ratio 40/60 between practice and research staff across academic staff (professors and postdoc) needs to be reviewed regularly to reflect the future needs of the professional field, the programme and the strategy of the university.</p> <p>The department is expecting their resources to increase soon, relying mostly on recent recruitment where tenure-track system has been adopted for future professor positions.</p>

<p>Distribution of teaching staff by age and the percentage of young members of the teaching staff ensure the sustainability of studies in an educational institution and in a study programme group.</p>	<p>Report for Re-Assessment, Section 5 and Table 7.</p>	<p>The Staff competence development plan, aims to manage change in staffing by 2019, including rebalancing new appointments to reduce average age from 51 to 47.</p> <p>The Committee commends the introduction of post-doctoral fellowships.</p>
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<p><b>2.1. Requirements for teaching staff</b> <b>- ASSESSMENT SUMMARY</b></p>	<p><b>Conforms to requirements</b></p>	<p>Partially conforms to requirements</p>	<p>Does not conform to requirements</p>
<p><b>Justification:</b></p> <p>Changes have been made in new staff appointments to increase numbers with PhD and Architects registered level 8. In addition, there is an ongoing process of Staff Competence Development. There is new and effective leadership provided by the Head of Academy of Architecture and Urban Studies.</p> <p>According to the meetings with the management, staff, stakeholders, alumni and students express their support to the very new and ambitious development plan, as well as to the new leadership of the Academy.</p>			

**2.2. Financial resources of an educational institution**

REQUIREMENTS	EVIDENCE GATHERED	COMMENTS
<p>The financial resources of an educational institution are adequate for conducting studies.</p>	<p>Report for Re-Assessment visit to the department, meetings with management and students, annual reports until 2017 (available on TalTech website).</p>	<p>As an institution, the annual reports demonstrate that the University has adequate resources to deliver their degrees. The budget related to the programme in architecture could not be provided and is unfortunately not detailed in the documents available. However, from the visit and meetings, it is clear for the Committee that the resources allocated to the programme are adequate. It is managed at department level (here, the department of civil engineering and architecture) which is the largest department of TalTech expecting increase in budget in the very next years.</p> <p>A very positive point is that the external funds can be managed at the lowest level and the Academy of Architecture and Urban Studies is targeting to increase these funds to 250k€ by 2020, compared to 100k€ today. This will allow the Academy to support their development in research including extending the team of postdoc and PhDs.</p> <p>The students have expressed no major deficiencies regarding the facilities, lab equipment, or staff resources.</p>
<p>The financial resources of an educational institution are adequate for teaching staff development and for development activities related to studies.</p>	<p>Report for Re-Assessment, Annex 05-4, visit to the department, meetings with management and students, annual reports until 2017 (available on TalTech website).</p>	<p>Here again, no clear budget could be provided. However, from the meetings, particularly with the academic staff, the Committee learned that there are many opportunities for staff development in terms of pedagogical training or attending conferences. The academic staff is also making use of international research project opportunities. For the period 2016-2018, TalTech reports 8 ongoing research projects, 8 international projects and 3 others being in preparation.</p>

	website).	<p>The department also provided a Faculty competence development plan clearly identifying the available competences and those to be covered by future recruitment.</p> <p>Regarding the activities related to the programme, the institutional financial support for the field trips (locally or internationally) is commended.</p>
Financial data describing the economic sustainability are made available to the public.	The annual reports until 2017 (available on TalTech website).	The annual reports of the institution are published in the institutional website and shows economical balance on average and sustainability of the institution.
Annual reports of an educational institution or its manager are audited, unless otherwise provided by law.	The annual reports until 2017 (available on TalTech website).	The annual reports of the institution are published in the institutional website and an audit committee is in place.

<b>2.2. Financial resources – SUMMARY ASSESSMENT</b>	<b>Conforms to requirements</b>	Partially conforms to requirements	Does not conform to requirements
	<b>X</b>		
<p><b>Justification:</b></p> <p>Although the budget could not be provided at the programme level, it appears from the visit and the meetings that adequate resources (staff, facilities, equipment) are available to deliver the programme in architecture. Staff development opportunities are made available by TalTech and involvement in international projects. A recent significant change in conducting research is likely to generate additional resources and research competences in the very next years.</p>			

**2.3. Study environment of an educational institution**

REQUIREMENTS	EVIDENCE GATHERED	COMMENTS
<p>The study environment includes all premises necessary for conducting studies (auditoriums, seminar rooms, laboratories, rooms for students for independent work and recreation, etc.) and is of adequate capacity considering the number of students.</p>	<p>Report for Re-Assessment, Meetings with the management and students, visit on site</p>	<p>The study environment is divided on two TalTech campuses. The Tonismägi campus was constructed during 2012-2015 and refurbished to respond to the needs of contemporary learning environment specific for this study programme. The classrooms are equipped with computer, internet, Wi-Fi and smartboard with projector. The premises are well-liked by students. Students have rooms for independent and group work, to build scale models, printing, and recovery. However, while working on this campus, students need their personal laptops as there are no computers for student work. The documented Tonismägi campus facilitates the current number of students, but this should be analysed if number of students increase in the future.</p> <p>Additional teaching facilities are available at the main campus, such as auditoriums, seminar rooms and computer classes. Most of the laboratory facilities are located in the Faculty of Engineering and Architecture.</p> <p>The Academy of Architecture and Urban Studies investigate the possibilities of remaining at the Tonismägi campus or relocating to the main campus.</p>
<p>Study environment is furnished in conformity with contemporary requirements (video projectors, the Internet, etc.).</p>	<p>Report for Re-Assessment, site visit</p>	<p>The study environment meets the needs of the contemporary learning environment and classrooms are equipped with computer, internet, WiFi and s smartboard with a projector.</p>

<p>The conduct of studies and the activities of an educational institution are supported by contemporary information technology solutions, including the information system of studies, e-learning opportunities, and communication portals for students and teaching staff.</p>	<p>Report for Re-Assessment, Meeting with rector and vice-rector, meeting with students</p>	<p>TalTech places strong emphasis on developing the e-Learning and by 2020 all compulsory courses provided by the university should have e-support. The employees are provided a 6 ECTS training to enhance their digital skills, thus enabling efficient use of the e-Learning environments.</p> <p>Students have electronic access to the Estonian EVS and international ISO standards in the library, as well as to the international architecture and building database ASCE. Also, students use educational or trial versions most important design, visualisation and simulation software (Autodesk products (Autocad, Revit, 3D MAX), Graphtisoft products (Archicad, Artlantis Studio, MEP Modeler), EcoDesigner STAR, Tekla BIMsight, Solibri Model Viewer. Trial versions of the following software are used in the courses: Adobe software (Photoshop, Illustrator, Indesign), Rhinoceros + plugins. The IDA Indoor Climate and Energy and Radiance simulation software are primarily in research use).</p> <p>Students have neither access nor training to a software for structural computations required for effective integration of engineering studies in this study programme. Furthermore, due to lack of computers for students with appropriate design and simulation software, students rely solely on their personal laptops for school work.</p>
<p>Support services that support studies provide counselling for students and ensure the necessary document management.</p>	<p>Report for Re-Assessment, Annex 06-2, Meeting with students.</p>	<p>TalTech provides students support and counselling for study plan formation, registration to modules and exams, study allowance and application and feedback submission. Students experienced that the support services are efficient and available.</p>

<p>A library that ensures the availability of contemporary information sources and provides students with the opportunities for independent work.</p>	<p>Report for Re-Assessment, meeting with students.</p>	<p>The library is located at the main campus of TalTech. The collection of books and publications of architecture are developed together with the Academy of Architecture and Urban studies. Students spend approximately half of their time in the main campus, thus the library collections are reasonably available for the students. The digital use of collections broadens the availability of the collections for the students located in Tonismägi campus.</p>
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<p><b><u>2.3. Study environment – ASSESSMENT SUMMARY</u></b></p>	<p><b>Conforms to requirements</b></p>	<p>Partially conforms to requirements</p>	<p>Does not conform to requirements</p>
<p><b><u>Justification:</u></b></p> <p>The study environment is located on two campuses, the Tonismägi campus and main campus. The Tonismägi campus was renovated during 2012-2015 to meet the requirements of contemporary learning environment. Importantly, the facilities of the campus are developed through relocating laboratory facilities, such as heliodon device, or investing in new equipment. The services provided by TalTech and library are located at the main campus, but students considered them easily accessible with frequent visits to the campus due to different learning activities. However, commuting between two campuses is time-consuming.</p> <p>One important facility in architectural studies is access to design, visualisation and simulation software. Such software is widely available for the students. However, to support full integration of engineering subjects to studies, the study programme should investigate the access and guidance to use a structural computation software.</p> <p>TalTech develop their e-learning environment actively. These services support communication between the teachers and the students and provide access to support services. Importantly, the university also provides training for the staff to use the implemented.</p>	<p><b>X</b></p>		

<b><u>2. ASSESSMENT OF RESOURCES NECESSARY FOR CONDUCTING STUDIES</u></b> <b><u>- ASSESSMENT SUMMARY</u></b>	<b>Conforms to requirements</b>	Partially conforms to requirements	Does not conform to requirements
<p><b><u>Justification:</u></b></p> <p>Changes have been made in new staff appointments to increase numbers with PhD and Architects registered level 8. In addition, there is an ongoing process of Staff Competence Development.</p> <p>According to the meetings with the management, staff, stakeholders, alumni and students express their support to the very new and ambitious development plan, as well as to the new leadership of the Academy.</p> <p>Although the budget could not be provided at the programme level, it appears from the visit and the meetings that adequate resources (staff, facilities, equipment) are available to deliver the programme in architecture.</p> <p>The study environment is located on two campuses, the Tonismägi campus and main campus. The Tonismägi campus was renovated during 2012-2015 to meet the requirements of contemporary learning environment. Importantly, the facilities of the campus are developed through relocating laboratory facilities, such as heliodon device, or investing in new equipment. The services provided by TalTech and library are located at the main campus, but students considered them easily accessible with frequent visits to the campus due to different learning activities. However, commuting between two campuses is time-consuming.</p> <p>One important facility in architectural studies is access to design, visualisation and simulation software. Such software is widely available for the students. However, to support full integration of engineering subjects to studies, the study programme should investigate the access and guidance to use a structural computation software.</p> <p>TalTech develop their e-learning environment actively. These services support communication between the teachers and the students and provide access to support services. Importantly, the university also provides training for the staff to use the implemented.</p>			
<b><u>X</u></b>			

**3. ASSESSMENT OF SUSTAINABILITY OF CONDUCTING STUDIES**

COMPONENT ASSESSMENT AND CONFORMITY TO REQUIRED STANDARD:	CONFORMS TO REQUIREMENTS	PARTIALLY CONFORMS TO REQUIREMENTS	DOES NOT CONFORM TO REQUIREMENTS
Quality of conducting studies	<u>X</u>		
Resources	<u>X</u>		
<p><b>Comments:</b></p> <p>Regarding the quality of conducting studies, it is clear that TalTech has made tremendous effort to clearly and adequately define the programme mission. The programme is better aligned with this mission and the labour market demand. Now that a programme committee involving all the stakeholders is operational, the sustainability of the programme quality should be ensured with good PDCA quality loops (plan–do–check–adjust).</p> <p>Regarding the resources, here again tremendous efforts have been made and implemented, particularly regarding the research team (postdoc and PhD fellows). The department is expecting their resources to increase soon, relying mostly on recent recruitment where tenure-track system has been adopted for future professor positions.</p>			

**3.1. Sustainability criteria in addition to quality and resources**

REQUIREMENTS	EVIDENCE GATHERED	COMMENTS
Trends in the number of students and graduates, and the budget of <u>an educational institution</u> in the last five years indicate sustainability.	Report for Re-Assessment visit to the department, meeting with management, annual reports until 2017 (available on TalTech website).	The number of students at TalTech has decreased in the recent years (13,488 in 2012, 12,863 in 2014, 11,208 in 2017) as expected by demographic projections but the share in the Estonian higher education landscape is increasing. The operating incomes remain relatively stable in the recent years, except in 2016. The main financial indicators also show very good stability and, overall, the trend is positive.
Trends in the number of students and graduates of <u>the study programme group</u> in the last five years indicate sustainability	Report for Re-Assessment visit to the department, meeting with management.	<p>The number of graduates in the recent years is very stable (around 10). Considering the resources put in the programme, this is a very low number and does not ensure yet sustainability. It is obviously very difficult to assess this trend since the integrated programme has only started in 2013. As the nominal time for graduation is 6 years, the first reliable figures about timely graduation will be available only after the Master theses of 2019 have been examined. This has not been identified as a risk by the department and no clear specific actions have been proposed.</p> <p>The collaboration with EKA, though redefined by a renewed memorandum of agreement, is still not yet implemented, despite the clear expected mutual benefit for the quality of teaching and the sustainability. This should be urgently properly planned and implemented.</p>
An educational institution regularly plans its development: the institution	Report for Re-Assessment, including Annex 01-1, visit to	There is evidence that TalTech regularly plans their development and set goals to ensure its academic quality with clearly established approval procedures across the institution. The action plan submitted is, however,

<p>has a development plan accompanied by an action plan to ensure sustainability both in the educational institution and in a given study programme group.</p>	<p>the department, meetings with management and academic staff.</p>	<p>clearly driven by the re-assessment criteria and does not result from a self-assessment exercise or feedback from stakeholders. The clear vision shared by the Head of Academy of Architecture and Urban Studies during the meeting is not yet fully reflected in the action plan.</p>
<p>The implementation of an action plan is analysed and the analysis forms the basis for planning of the next development period.</p>	<p>Report for Re-Assessment, including Annexes 01 and 03-4, visit to the department, meetings with management, academic staff, external stakeholders and students.</p>	<p>A clear action plan has been provided together with an Interim evaluation of the Research Development Plan 2016-19 implementation. The latter give good evidence of self-assessment and closing PDCA loops. This should, however, be extended to all activities and the consistency of the quality assurance mechanisms would gain from a better integration and consistency.</p>
<p>An educational institution has prepared a financial projection to achieve objectives described in a development plan and to minimise possible risks (including risks coursed by demographic trends).</p>	<p>Report for Re-Assessment visit to the department, meetings with management and academic staff, annual reports until 2017 (available on TalTech website).</p>	<p>The financial projection is published on an annual basis on the web though the last available projections refer to 2018. The risk management issues are clearly underrepresented at institutional level in these documents. They are also at programme level since issues related to staff ageing and number of graduates should have been clearly analysed and addressed.</p>

<p><b><u>3. SUSTAINABILITY OF CONDUCTING STUDIES – ASSESSMENT SUMMARY</u></b></p>	<p>Conforms to requirements</p>	<p><b>Partially conforms to requirements</b></p> <p><u>X</u></p>	<p>Does not conform to requirements</p>
<p><b><u>Justification:</u></b></p> <p>The quality of the programme has been clearly improved by the recent reforms ensuring a better alignment with the mission and the labour market. If there is no major concern about sustainability of institutional funding, there is, however, a clear lack of strategic planning and securing research funding.</p> <p>The number of students and the budget are stable. The number of graduates, however, is low considering the resources allocated to the programme.</p> <p>There is some evidence of strategic planning but the action plan is not clearly supported by a PDCA cycle in all activities neither by the stakeholders. The quality assurance would gain of improving consistency. It also requires introducing systematic risk management.</p>			