

CvB stukken voor agenda Universiteitsraad

Overlegvergadering d.d. : 25th of September 2019

Commissievergadering : OOS

Agendapunt : Investment plan regarding the central budget from student loan fund

Bijgevoegde stukken : - Investment plan central WSV-budget
- General information about the quality agreements and the plan itself, are available at the UT website:
<https://www.utwente.nl/en/education/about-our-education/quality-agreements/>

Betrokken concerndirectie: S&B

Secretaris: Wichman

Portefeuillehouder: Palstra

paraaf: 

paraaf: 

paraaf: 

1. Status agendapunt:

Rol URaad:

For approval

2. Eerder behandeld in:

Naam gremia: University's Commission on Education

Data behandeling: 30th of August 2019 (per mail)

Naam agendapunt: Investment plan regarding central budget from student loan fund

Beknopte conclusie: In general, the comments of UC-OW members were positive. In addition, the following remarks were made:

- Description of the ambitions and measures are elaborately and can be more to the point.
- In comparison with the other programme, the programme community building has a small budget.
- The investment plan regarding central WSV-budget complements well with the intentions of the faculties. This also implies that the UT should remain conscious that duplications between plans of faculties and the central investment plan will not occur.
- The investment plan consists of variety of concrete measures. Though in this stage a revision of the investment plan is not possible anymore, the UT might consider to invest in a select number of topic in the future.

3. Toelichting/samenvatting:

The Accreditation Organisation of the Netherlands and Flanders (NVAO) expects that the UT has a comprehensive budget for all the revenues from the student loan system, the WSV-budget (Dutch abbreviation of Wet Studievoorschotmiddelen). Regarding the years 2019, 2020, and 2021, this comprises a clear proposal that explains the expected expenditures per measure. For the years 2022, 2023, and 2024, a more abstract budget is suffice, which means that the university has to explain on what long-term aims the university intends to invest.

Twenty percent of the WSV-budget is allocated to the UT's central budget in order to cover the costs of initiatives or services that benefit the university as a whole. The NVAO request means that the UT should also develop an investment plan of the central WSV-budget.

The investment plan concerns the whole period of the quality agreements (2019-2024). Nevertheless, each year, the UT will reflect on the progress of the quality agreements. Subsequently, the UT will adjust plans if necessary, and incorporates new ideas that are supported by the UT community. The University Council has to approve the central WSV-budget each year.

This investment plan of the central WSV-budget is based on UT's plan on Quality Agreements, which was approved by the University Council in December 2018, and explains in more detail what service department intend to do to support faculties in realizing their plans. UT's budget for 2019 describes the efforts that service departments undertake in 2019 by means of the WSV-budget. These effort are included in the investment plan, and most of these efforts are continued in the years 2020-2024. Since the WSV-budget shows an annual rise (+k€93 in 2020, +k€431 in 2021, +k€263 in 2022), additional intentions had to be formulated. Service department provided input for this. These intentions fit well into the five quality agreement programmes, and are supportive to faculties' quality agreements. These programmes were defined last year, based on the input provided by students and staff within faculties.

The Executive Board asks the University Council for approval of the investment plan regarding the central WSV-budget.

4. Besluit CvB:

The Executive Board takes the intended decision to endorse the investment plan regarding the central budget from the student loan system (in Dutch: bestedingsplan centrale budget van de studievoorschotmiddelen). This proposed decision will be submitted to the University Council for approval.

GRIFFIE URaad: (door griffie UR in te vullen) Eerder in URaad aan de orde geweest?

- Nee.
- Ja, op

Conclusie toen:

Nadere toelichting: (Voor als presidium/griffier vindt dat één van bovengenoemde punten nadere toelichting behoeft)

.....
.....

Investment plan
central budget
from the student loan fund

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Introduction

The UT plan on Quality Agreements, that was finalised in November 2018 and approved by the University Council on 12 December 2018, describes the aspired and required development of education. This development focusses on five programmes: Learning facilities, Community building, Teaching professionalization, Talent development of students, and Global citizens. Each programme has a long-term ambition in order to consolidate action plans and to direct the efforts the UT will take in order to improve education and to foster innovation. Faculties have the freedom to develop their educational quality within one or more of these programmes in the years to come. Service departments support faculties in this process. Support from service departments that is of benefit to all faculties and actions that are relevant for the university as a whole, are covered by the university's central budget. That is why twenty percent of the income from the student loan system, the WSV-budget (Dutch abbreviation of Wet Studievoorschotmiddelen), is allocated to the UT's central budget.

This plan explains in more detail how the central WSV-budget is used. The ambitions describe the long term aim of the investments. All the ambitions are subdivided over the five quality agreement programmes. Per ambition, measures are listed and a description is given of the intended results until December 2021. Next to this, it is explained how the measures contribute to realizing the ambition and what the effect for students will be.

At the moment, the UT is in the middle of a process to define its vision and strategy for 2030: Shaping 2030. Because the investments of the WSV-budget should support the university's strategy, the UT will consider if adaptations of the central WSV-budget are required when Shaping 2030 is finalised. An option is to cluster the investments of the central WSV-budget more specifically around the areas that will be identified as part of the Shaping 2030 process. Naturally, possible adjustments regarding the investments of the central WSV-budget will be the outcome of an annual dialogue within the UT community.

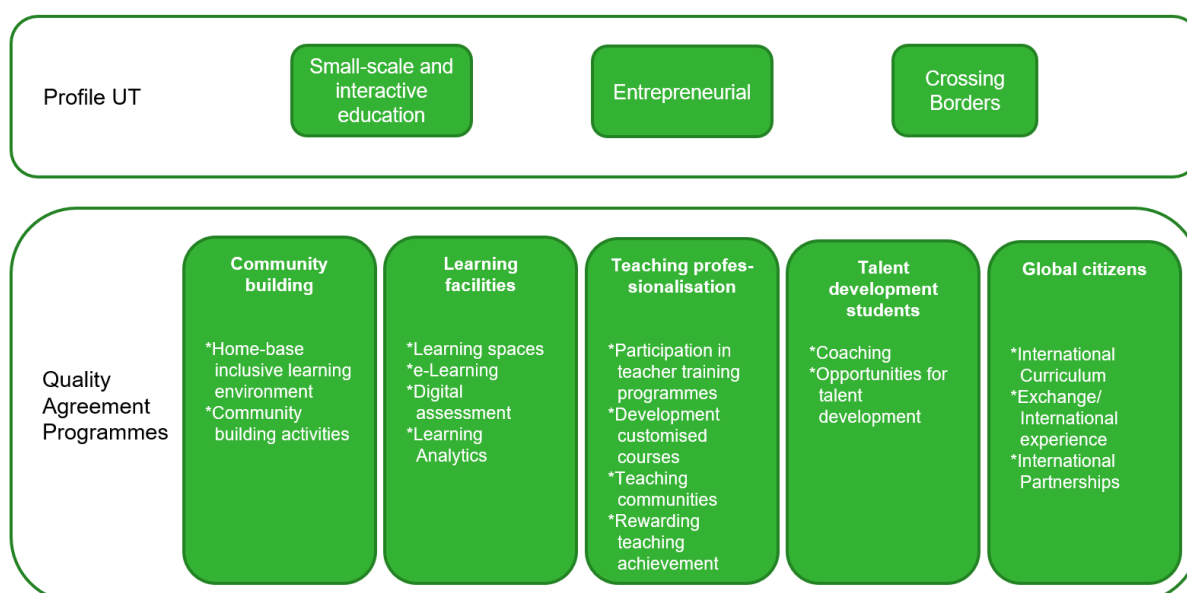


Figure 1: Relationship between UT's educational profile and UT quality agreement programmes

Continuous development

Improvement and change are dynamical processes and by means of a programmatic approach the UT supports mutual learning and stimulates that education continuously develops. The UT believes that the involvement of its students is crucial in this respect. That is why the UT welcomes critical and creative thinking from students and incorporates moments in UT's annual planning & control cycle where students reflect on the current situation and make suggestions for further development.

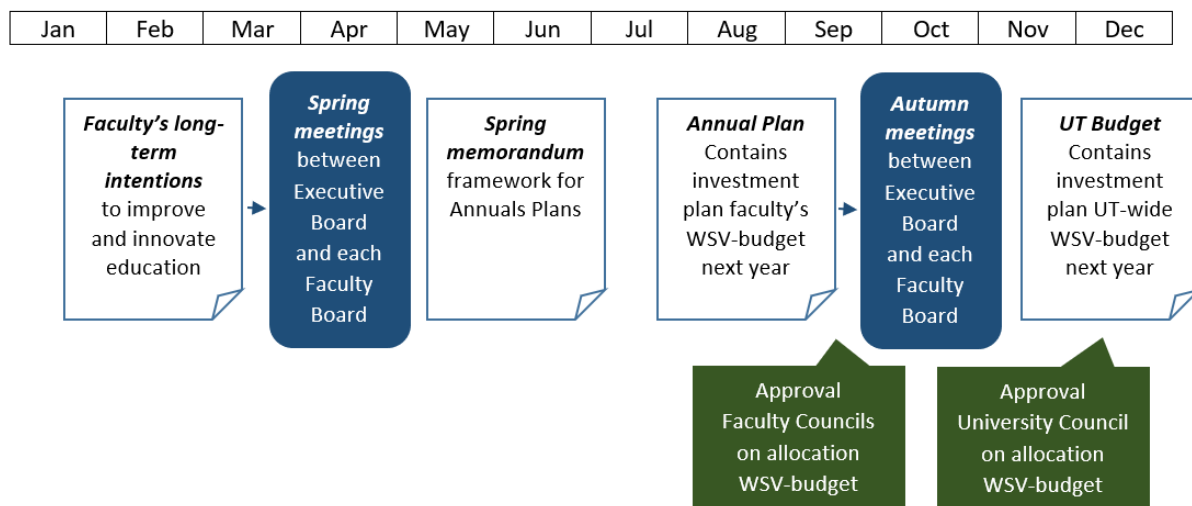


Figure 2: Overview of the annual reoccurring 'plan-phases' at university level that concern the quality agreements

By means of the UT's education development cycle, the UT keeps track of the quality agreements, adjusts plans if necessary, and incorporates new ideas that are supported by the UT community. At faculty level, faculties have their own planning & control cycle to monitor their plans and to adjust and further define the course of their agreements. The Vice-Deans of Education, make sure that students and staff are involved in this process. The cycle at faculty level is interconnected with the cycle at university level. Regarding the 'plan-phase' of the education improvement cycle at university level, the following documents and events are important (see also the figure above):

- During the **spring meetings**, which take place between the Executive Board and each Faculty Board in April, **long-term intentions to improve and innovate education are discussed (t + 1 till 4 years)**. Faculties define their long term intentions regarding development of education, based on 1) general insights that are derived from points of improvement that Degree Programmes defined, and 2) the current situation which is explained in the management report of December. Outcomes of the spring meetings can be included in the **spring memorandum**. The spring memorandum sets the framework for the annuals plans that faculties and service departments submit in September.
- **Annual plans of faculties and service departments** describe what **will be done upcoming year to improve education (t + 1 year)**. Specifically, faculties and service departments have to explain how the WSV-budget will be invested in the next calendar year. Faculty Councils have the right to annually approve the allocation of the WSV-budget. In October, annual plans of the faculties and service department are discussed during the **autumn meetings** between the Executive Board and the Faculty Boards and between the Executive Board and the Directors of the service department.
- The **UT annual budget** explains how the central WSV-budget (20%) is used in the next calendar year (t + 1 year). The allocation of the central WSV-budget needs approval from the University Council. The annual budget is discussed with the University Council in December.

Regarding the 'check-phase' of the education improvement cycle at university level, the following documents are important:

- The UT report on the progress of the quality agreements in its **annual report**. Faculties and service departments report on the realisation of their quality agreement plans via the **management report of December** (t – 1 year). This information will be included in UT's annual report.
- Halfway each calendar year, faculties and service department report on the progress of their quality agreement plans via the **management report of May** (t).

The University's Commission on Education (in Dutch: Universitaire Commissie Onderwijs, abbreviated as UC-OW) discusses long term intentions regarding development of education. The UC-OW advises on the central WSV-budget, so that the support from service departments can be adjusted to the common needs of faculties and to initiatives that are beneficial for the whole UT.

The progress of the 'central measures', based on the information provided in the management report of May, will be discussed between the Rector Magnificus, the study associations via the commissioners of educational affairs, the two student representatives within the UC-OW, and student representatives from University Council's commission on Education (in Dutch: Commissie Onderwijs, Onderzoek en Studentenzaken). Reflections and suggestions that come up during this meeting, provide input for service departments and UT policy.

As explained in chapter 10 of UT's plan on quality agreements, the UT has a broad range of monitoring instruments to collect information on the basic parameters of educational quality and to keep track of the implementation of UT's strategy. Several of these key performance indicators (KPIs), which are part of the regular quality assurance, provide relevant information regarding the impact of the quality agreements. At the same time, the KPIs show the effects of all the efforts the university takes to improve quality of education. The UT uses these KPIs to have an informed discussion with its community about whether the efforts and measures, which are part of the quality agreements, contribute to realizing the long-term ambitions. Naturally, interpretation of the KPIs is required, and therefore, these KPIs are discussed at UT level, together with the progress reports, by the Rector Magnificus and students (see explanation above).

Intended measures by means of UT central budget from the student loan fund

The intended measures and efforts of the service departments are explained in this chapter. The plans are subdivided over the five quality agreement programmes.

Programme Community building

Ambition: Applying a home base concept in an efficient way to the degree programmes of the UT, so that students feel part of a community, consisting of staff and fellow students from their degree programme, which benefits their learning process and contributes to their well-being.

During the first three years of the quality agreements, the focus is on communities within degree programmes, consisting of staff and students. Moreover, the community includes alumni as well and can, therefore, be called the 'UT community for life'. By building this 'UT community for life' with members all over the world, students are inspired with stories about scientific research, innovations, start-ups from UT research groups, alumni, and business relations. This community stimulates its member to develop themselves as global citizens. The UT intends to put more effort in developing this 'UT community for life' during the second term of the quality agreements (2022-2024).

Measures:

1. A needs and requirements analysis will be performed that shows to what extent the home base elements should be implemented per degree programme. Campus and Facility Management (C&FM) and the Center for Educational Studies (CES) will assess what the consequences are of the requirements for housing, digital capabilities, and timetables, because scheduling near a home base has effect on usage of class rooms and the capacity of the Central Education Facilities.
2. Increase capacity of the Scheduling Team with 0.5 fte, as the application of the home base concept is more time intensive and requires more customization.

Target until 2022:

1. Needs and requirements analysis regarding the home bases of degree programmes is completed. Based on this analysis, a follow-up plan is defined.
2. Apply the home base concept in the schedule system per the academic year 2020/2021.

Intended effects for students: Adaptations in scheduling make that students more often follow courses and study in the vicinity of their study association and/or the location where most academic staff of the degree programme work. Hereby, students are supported to interact with academic staff and fellow students. Further development of the home base per degree programme should enhance the feeling among students that they are part of a community. A community that supports individual members in their learning process and contributes to their overall well-being.

The National Students Survey provide information about the small-scale character of a degree programme. Relevant items are the experienced group

size, teachers' availability outside contact hours, and the general atmosphere within the degree programme.

Budget:

	2019	2020	2021	2022	2023	2024
Ambition	37	37	30	90	90	90
Measure 1	37	37				
Measure 2			30	30	30	30
Future investments				60	60	60

Programme Learning facilities

Ambition:

Increase the quality, availability and usage of learning facilities, physically as well as digitally. Specifically the UT aims to:

1. Increase the quality, quantity and usage of learning spaces for individual study as well as teamwork (student projects).
2. Improve guidance of the students' learning process by improving the availability and use of digital education tools (digital assessment, peer feedback, blended learning, flipping the classroom)
3. Explore how learning analytics can help students to improve their learning process by providing dashboards to students. Hereby, learning analytics is a tool to stimulate and improve students' reflection on their learning.

As the UT states in its plan on quality agreements, learning facilities should support the UT's educational model, which can be characterized by interaction with peer students and teachers on campus, active learning of students, a variety of teaching methods that appeals to different learning styles, and, specifically for bachelors' programmes, project-led education. The UT expects that digital education tools will increasingly provide opportunities to support its educational model. Digital education tools like learning analytics, digital assessment (also in the sense that peer feedback among students is supported), and blended learning, are expected to be more prevalent from 2022 onward. Because the UT believes that on-campus learning remains important, the UT intends to invest on the longer term in experimental learning spaces, in which the advantages of digital tools and a classroom are combined. The UT intends to invest more WSV-budget in learning facilities during the second term of the quality agreements, due to the new possibilities for student learning, that go along with digital tools.

Regarding the second term of the quality agreements, the UT intends to further improve provision of information to empower students to help themselves as good as possible and to diminish avoidable stress caused by lack of clear and timely information. It would be helpful for students that information about topics like study progress, classroom schedules, composition of project groups, and possibilities for talent development, are available at one digital platform.

Measures:

1. Measures regarding learning spaces:
 - a. Improve the real-time booking system for project rooms.
 - b. Develop a real-time booking system for study workplaces.

Both measures regarding the real time booking system make use of the results of a pilot project with sensor techniques that identify

free spaces with no-show or early leaves. This pilot will be executed in 2020 by means of other recourses. The pilot will provide information about the feasibility of measuring and visualizing availability of learning spaces.

When the UT has real-time information about the availability and usage of spaces, a next step in the long term would be to explore the possibilities of adaptive scheduling. Adaptive scheduling allows for dynamic changes in the schedule based on previous and current demand. The UT keeps this in mind for the second term of the quality agreements. With adaptive scheduling the learning spaces for the regular class schedule are used more efficiently, so more learning space is available for project work and individual study workplaces.

2. Measures regarding digital education tools:
 - a. Introduce advanced functions of Canvas, or from satellite systems connected to Canvas.
 - b. Expand capacity for digital assessment. The central income of the student loan fund is used to acquire additional software licenses, which are necessary to administer web-based and software-based tests. Faculties will cover the other costs that are required to implement and expand digital testing.
 - c. Facilitate teaching staff to apply digital tools within education (e.g. making use of blended learning, and increase interactivity in the classroom).
3. Explore and implement possibilities of learning analytics for students.
 - Create and collect data that will be used for early warning signals and for dashboarding. Experiments with digital didactics (e.g. online quizzes) to create appropriate data for analytics. For useful personal insights we need to know: “what do we need to measure, and what can we measure?”.
 - Experiment and pilot with dashboarding for personalised learning insights and early warning signals to improve student well-being

Target until 2022:

1. Intended results regarding learning spaces: a real-time booking system for project rooms and study workplaces is available for students in 2022.
2. Intended results regarding digital education tools:
 - a. Canvas and its satellites provide for extra functionalities to create a richer digital learning environment for students.
 - b. Software licenses available to accommodate web-based and software-based tests. The overall plan, in which facilities participate, intends to increase the capacity for digital assessment from 250 test sites in 2018 to 500 test sites in 2019.
 - c. Teachers are supported by means of the development, implementation, and application of digital tools within education. The capacity of the support team will be expanded by 0.5 fte per 2021, increasing to 1.0 fte in 2022.
3. In 2020 the UT plans to further explore the possibilities that learning analytics can offer to students to improve their learning process. Digital didactic experiments have been successfully implemented to explore useful data for learning analytics. First steps of realization are to be expected in 2022, further development in the years up to 2024.

Intended effects for students:

In general, improvements and innovations regarding learning facilities will enable the UT to execute its educational principles even better, thereby improving student learning. Students will experience that learning facilities accommodate group work, increase the variety of teaching methods, and provide ways to gain regular and useful feedback on the learning process. Intended effects per measure are:

- Learning spaces: Currently, the students experience insufficient availability of learning spaces. The investments in the real-time booking systems will make it easier for students to find alternative spaces, preferably close to their home base. Students will have real-time information about available project- or study workplaces. Thus, students are stimulated to use these on-campus facilities and spend less time on finding them. The UT considers to explore the possibilities of adaptive scheduling starting from 2022. The benefits of adaptive scheduling would be that the learning space for the regular class schedule is used more efficiently, so more learning space is available for project work and individual study workplaces.
- Digital education tools: Digital education tools will provide a richer digital learning environment. Regarding the advanced functions of Canvas, and satellite systems connected to Canvas, specific effects for student depend on the added functionalities. By supporting teaching staff to apply digital tools within education, the UT also intends to create a rich and innovative learning environment. Often, teachers themselves come up with ideas to stimulate the learning experience by means of digital tools. Teachers with these ideas are supported by the TELT-team (TELT is an abbreviation of Technology Enhanced Learning and Teaching), in such a way that other teachers can use these innovations as well.
By means of software-based testing, alignment between the real-life situation and the test improves. Digital assessment makes it possible to simulate a realistic testing environment, thereby providing better feedback regarding acquired skills and competences (e.g. programming-skills). Next to this, the use of digital tests is expected to reduce the workload for teachers. Formative assessment and peer feedback enriches the students' learning experience.
- Learning analytics: Learning analytics inform a student about his or her study process, thus enabling him or her to adjust and adapt it where necessary.

The National Student Survey provides information about how students experience the learning facilities. Specific items are surveyed, such as availability of workstations, suitability of classrooms and the digital learning environment. Regarding the curriculum, the National Students Survey asks whether students are satisfied with the learning methods used in the degree programme, and whether students are satisfied with the quality of the study materials. These questions are relevant to get an impression of how students experience the learning environment.

Budget:

	2019	2020	2021	2022	2023	2024
Ambition	172	192	387	604	584	584

Measure 1a			50			
Measure 1b			50			
Measure 2a		20	20	20	20	20
Measure 2b	60	60	60	60	60	60
Measure 2c	112	112	152	192	192	192
Measure 3			55			
Future investments				332	312	312

Programme Teaching professionalisation

Ambition: Support teachers, programme directors, module coordinators, and student-assistants to improve the quality of teaching and the curricula.

Reward teaching achievement by embracing a culture of excellence that recognizes and appreciates investments in educational improvement, teaching quality and teacher development.

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- Measures:**
1. Develop the Learning Assistant Programme¹ in cooperation with participating faculties.
 2. Develop (short) customised courses, e.g. about project-led education or tutorship, or courses for programme directors and module coordinators. In the short term, an introductory course for new teachers will be developed and implemented.
 3. A number of faculties want to increase the number of teaching staff that obtained a University Teaching Qualification (UTQ), a Senior University Teaching Qualification (SUTQ), and/or an Educational Leadership Programme certificate. To accommodate these intentions, more coordination is required. As part of this, the UT intends to designing 2 additional SUTQ tracks.
 4. Support initiatives regarding peer review and teacher community. Follow up on the ‘international Survey Teaching Cultures’ in 2019 with a focus on
 - Teacher professionalization
 - Career opportunities (Professorship with emphasis on education and teaching talent on associate professor level)
 - Evaluate and reward teaching achievements
 Final decision making on the roadmap of actions, results and the appropriate budgets will take place in the second half of 2019.

- Target until 2022:**
1. Courses for the Learning Assistant Programme are developed.
 2. A needs analysis for short customised courses, to improve didactic and pedagogic competencies of staff involved in education, is completed.

¹ Learning Assistants are selected students who have a clear interest in education; they receive a pedagogical training and participate in the degree program by, for instance, facilitating discussions among groups of students in a variety of classroom settings that encourage active engagement. The idea of a Learning Assistant Programme is inspired by the programme developed in Colorado for improving the recruitment and education of Science, Technology, Engineering and Mathematics (STEM) teachers. See <https://www.colorado.edu/program/learningassistant/>

Based on the outcomes of the needs analysis additional courses will be developed from 2019 onwards.

3. CELT has capacity to coordinate the UTQ, SUTQ, and the Educational Leadership Programmes in order in order to accommodate the increasing demand from faculties. An additional SUTQ track is developed, a pilot for a second SUTQ track is executed, and the design of a third track is started.
4. Improved hands on guidance on teaching evaluation in performance management and recruitment interviews. Appoint a full professor based on her/his excellence in education (in line with the adjusted career path policy)

Intended effects for students:

The aforementioned measures can be characterized as supportive actions to improve quality of education. In general, teaching professionalisation has an impact both on teachers themselves and student learning. It is intended that professionalization of staff and students involved in education improves teaching methods and educational design, thereby positively impacting students' learning.

Regarding the Learning Assistant Programme specifically, training of Learning Assistants should improve the design of tutorials and feedback students receive during tutorials. By getting students involved in the Learning Assistant Programme themselves, students are able to develop their educational skills and might even be triggered to continue a career in education. A survey will be conducted among the first cohort of Learning Assistants to find out how the training could be further improved.

Student appreciation regarding lecturers is monitored via the National Students Survey. This provides an indication about whether effort put in teaching professionalization has an effect on how students experience teachers' teaching skills and the quality of feedback teachers provide. Next to this, the UT monitors the number of teachers with a UTQ.

Budget:

	2019	2020	2021	2022	2023	2024
Ambition	127	147	147	147	147	147
Measure 1		20	20	20	20	20
Measure 2	56	56	56	56	56	56
Measure 3	56	56	56	56	56	56
Measure 4	15	15	15	15	15	15

Programme Global Citizens

Ambition: Support degree programmes in developing an international curriculum and creating an inclusive international environment, to prepare students for their future in a global environment.

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- Measure:**
1. Support development of an international curriculum
 2. Support of exchanges and international partnerships

Target until 2022:

1. The Centre of Expertise in Learning and Teaching (CELT). supports degree programmes that implement an international curriculum. Approximately three degree programmes will be supported until the end of 2021.
2. A number of faculties want to increase the number of exchange programmes and double degree programmes. These efforts are supported by CES. Regarding support of exchanges and international partnerships the following activities are done:
 - a. Exchanges. Activities to improve student wellbeing of international students are executed (e.g. support international student associations). These activities aim to improve inclusiveness among students. Activities are organised for both incoming and outgoing students (e.g. events like Let's go, and the Scholarship Ceremony).
 - b. Partnerships. Partnership programmes with international universities and governments are supported. This includes an analysis of the prospective partner to have insight in its academic level, support to draft (exchange) contracts, and scouting of prospective partners. Research is conducted on global qualifications of the UT in regards to international partnerships.

Intended effects for students:

Students involved in an internationally oriented programme will be prepared for a career in an international environment. The goal of the Global Citizens programme is not only to support the students having an international experience, but embed this experience in an international curriculum. Internationalisation requires incorporating a global, international and/or intercultural dimension into teaching (i.e. in the preparation and delivery of education) and learning (i.e. in the learning outcomes of the degree programmes). For this, internationalisation will be further implemented in English taught degree programmes by applying the principles of the Certificate on Quality in Internationalisation (CeQuInt). To give students the opportunity to have an international experience, the UT stimulates that student participate in an exchange programme and have the option to do a double degree programme with an international partner university.

The UT has a programmatic approach to internationalisation. A programme plan, based on clear goals and KPIs is executed. Programme management, consisting of a programme managers and project leaders, monitors the progress and adjustments are made if necessary.

At UT level, the National Students Survey provides information about students' experiences regarding internationalisation. Items are surveyed such as:

- Encouragement to study abroad
- Encouragement to learn about other cultures
- Focus of your programme on international subjects
- Opportunities offered to you to study abroad or complete a work placement abroad

Next to this, experiences of international students are monitored via the International Student Barometer that provides information about students' appreciation on topics like encouragement to learn about other cultures, and focus on international subjects.

The UT monitors the number of students that participate in an exchange programme. The UT has an up-to-date overview of partner universities with whom the UT organises double degree programmes.

Budget:

	2019	2020	2021	2022	2023	2024
Ambition	150	150	150	150	150	150
Measure 1	50	50	50	50	50	50
Measure 2	100	100	100	100	100	100

Programme Talent development of students

Ambition:

All students are stimulated and have the possibility to create their own learning experiences. The aim is to both increase the amount of students reached by the UT talent programmes and to lead to greater diversity of talents explored by students in order to enhance students’ career possibilities, employability, and wellbeing.

Currently, the UT supports talent primarily on the basis of an excellence model: selected students, i.e. with recognized talents, are given the opportunity to develop themselves through a variety of intra- and extracurricular activities. UT’s aim is to transition to a growth model, in which all students of the UT have access to tools, facilities, and opportunities to explore and develop their talents. That is why the UT, on the one hand, invests in measures that improve coaching of students, so that students reflect on/ become aware of their strengths, motives and ambitions. On the other hand, the UT invests in the UTalent Hub, so that students know what opportunities for talent development are offered by the UT, and are activated to explore future possibilities.

For the years 2019, 2020, and 2021, this implies that the UT employs several supportive activities in order to improve coaching and student guidance within faculties and the UT. Next to this, a UTalent Hub will be developed that, on the short term, should provide an overview of possibilities for talent development at the UT. Related to the UTalent Hub, initiatives that would result in an expansion of talent development opportunities, and for which all UT student can apply, will be developed as well. In the short term, this implies the development of a minor student team. In the long term this might imply an increase of the student teams.

For the years 2022 and further, a physical UTalent Hub might be developed at a central UT location. A precondition for this is that students express the need for a dynamic environment, which relates coaching and talent discovery with UT-opportunities at a central location. If an inventory turns out that such a need exists, students will be involved in the design of this physical hub. During the second phase of the quality agreements, it is expected that coaching within faculties will intensify and will be more widely implemented in the faculties. This would imply that training programmes and customised courses for coaches, among which are study advisors and mentors, should be developed and kept up-to-date in the long term.

Regarding talent development, it is important that the UT has a suitable infrastructure for students who suffer from depression or anxiety. These personal circumstances ask for professional treatment. Because the number of students with these kind of symptoms is increasing, and the UT has the ambition to offer the right support, the UT will invest extra in student well-being.

Measures:

1. Develop a UTalent Hub. Until 2021, this includes the following components:
 - a. Regarding talent development, the UT wants to realise the following phases in the short- and mid-term:
 - Perform an inventory of existing talent development opportunities related to the diverse types of talent and needs (2019). Based on this inventory, recommendations will be made for further development of initiatives and/or further exploitation of existing UT units, e.g. DesignLab, Student teams, Honours Programmes, UCT (2020).
 - Develop a virtual Talent development Hub. This UTalent Hub should be an online exploration tool that relates opportunities to the diverse types of talents (2021).
 - Set up a communication plan and PR activities to raise awareness of talent development possibilities (2021).

As explained in the ambition, it could be beneficial for students to have a physical UTalent Hub at a central location. Depending on the inventory, this physical hub could be developed from 2022 onwards.
 - b. Expanding career services activities. Since job orientation is part of the process in which students discover and develop their own talents, career services fit well within the UTalent Hub idea. In the short term, the UT will invest extra in career service activities. In the long term, career services might be connected with the physical UTalent Hub.
 - c. Develop and initiate the minor student teams.
 - d. Offering GoodHabitZ to all students. GoodHabitZ is an online platform with a variety of training courses.
2. Employ several supportive activities in order to improve coaching within faculties:
 - Employ an inventory of ongoing coaching activities, the needs and possibilities of degree programmes regarding coaching. Based on the inventory, recommendations are made for the pilot project regarding coaching (start 2019).
 - A training for coaches is developed (2020), coaches from degree programmes, which are involved in the pilot, are trained (2021).
 - Feedback tools on talent and career development are available for degree programmes, e.g. Carriere Kompas (2021).
 - Coaching is offered within the pilot programmes, thereby reaching a wider range of students (2021).
 - Pilot evaluation, including recommendations for UT-wide implementation regarding coaching. This includes an effect measurement on contribution of enhanced coaching on career confidence, career exploration and career clarity (2022).

In the long term, the UT foresees to expand professionalisation activities for coaches (e.g. study advisors, mentor) in the degree programmes of the UT. The results of the pilot evaluation will be used to decide what relevant next steps are.

3. Expanding mental health support by hiring an extra student psychologist.

Target until 2022:

1. Regarding the UTalent Hub:
 - a. The inventory of existing talent development opportunities, related to the diverse types of talent and needs, is completed. A virtual Talent development Hub is developed. A communication plan to raise awareness of talent development possibilities is developed and PR activities are undertaken.
 - b. Increasing support job orientation for students with 1.0 fte.
 - c. GoodHabitiz is available for all students
 - d. The 'minor student teams' has been developed and is available for bachelor students. The first students enrol during the academic year 2021/2022.
2. The needs analysis regarding coaching is completed. A training for coaches is developed. Based on the needs analysis, a pilot project on coaching with several degree programmes is conducted. Next to this, a feedback tools on talent and career development is available for degree programmes.
3. Expand services of student psychologists with 1.0 fte per 2020, increasing to 2.0 fte in 2023.

Intended effects for students:

Research has shown that a clear view of students about their talents, beliefs and motives in relation to their (future) profession (a clear professional identity) positively influences their well-being, motivation to learn, study outcomes and quality of career choices.² Developing a strong professional identity is not an individual process, it is shaped in relation to the sense of belonging to the community.³ As stated in the UT plan on quality agreements, facilitating students to discover and develop their own talents is a process that consists of two essential interacting processes. Firstly, a bottom-up approach in which the individual student is central in exploring questions like: Who am I? What are my talents? What is important to me? What do I have to offer? What do I want to develop? And secondly, a top-down approach in which the environment is central: What is out there? What are career options? What is expected from graduates in my field? These two types of questions should be answered not in isolation, but related to each other. That is why the quality agreements programme 'talent development for students' focusses at the UTalent Hub and coaching.

Student teams are a way in which a community gets shape. Students involved in a student team develop their own learning experience within the context of the team's international challenge (e.g. the World Solar Challenge

² Canrinus, E. T., Helms-Lorenz, M., Beijaard, D., Buitink, J., & Hofman, A. (2012). Self-efficacy, job satisfaction, motivation and commitment: exploring the relationships between indicators of teachers' professional identity. *European journal of psychology of education*, 27(1), 115-132.

³ Meijers, F., Kuijpers, M., & Gundy, C. (2013). The relationship between career competencies, career identity, motivation and quality of choice. *International Journal for Educational and Vocational Guidance*, 13(1), 47-66.

with solar cars, the Shell Eco Marathon with hydrogen fuel cell cars, the RoboCup that is about football with robots, and the Moto E Championship with electric motorcycles). It enhances their entrepreneurial attitude, and problem-solving skills, students apply knowledge from their own scientific domain and students learn how this domain is related to other domains that are relevant for the challenge. Next to this, because student teams work with sponsors, companies and researchers on innovation and product development, they learn to work in a professional environment and get acquainted with career perspectives and the labour market. The minor student teams will allow students to obtain credits (30 EC max) for the learning goals they achieve while being part of a student team. Now students generally stop their studies temporarily.

Both the pilot on coaching and the experience regarding the virtual UTalent Hub will be evaluated. Based on these evaluations, which take place in 2022, decision will be made about the future development of these initiatives. The National Students Survey provides information about the ways in which students are invited to excel. Specifically, students can rate to what extent they are challenged to give their very best, and students are asked to what extent they are satisfied with the opportunities provided to pursue their own interests. The National Students Survey also provide information about academic counselling: opportunities for receiving guidance and the quality of guidance provided.

Budget:

	2019	2020	2021	2022	2023	2024
Ambition	35	132	331	388	403	403
Measure 1a	22	22	38			
Measure 1b			90	90	90	90
Measure 1c			30	30		
Measure 1d			25	25	25	25
Measure 2	13	20	58	58	58	58
Measure 3		90	90	135	180	180
Future investments				50	50	50

Budget

Measures per programme	2019	2020	2021	2022	2023	2024
Community building (sub-total)	37	37	30	90	90	90
1. Needs and requirements analysis home bases degree programmes (CES)	37	37				
2. Increase capacity of Scheduling Team to accommodate Home base scheduling (CES)			30	30	30	30
F.I. Support 'UT community for life' (M&C)				tbd	tbd	tbd
Future investments				60	60	60
Learning facilities (sub-total)	172	192	387	604	584	584
1a. Improve the real-time booking system for project rooms (LISA)			50			
1b. Develop a real-time booking system for study workplaces (LISA)			50			
F.I. Explore the possibilities of adaptive scheduling (CES)				tbd	tbd	tbd
F.I. Create an experimental learning space (C&FM)				tbd	tbd	tbd
2a. Extension of possibilities Canvas (CES)		20	20	20	20	20
2b. Expand capacity for digital assessment – licences (LISA)	60	60	60	60	60	60
2c. Facilitate and stimulate use of e-learning (TELT)			40	80	80	80
2c. Facilitate and stimulate use of e-learning (TELT)	112	112	112	112	112	112
F.I. Innovation of education with ICT (TELT)				tbd	tbd	tbd
3. Explore possibilities Learning analytics (LISA)			55	tbd	tbd	tbd
F.I. Develop an online student communication app or platform (M&C)				tbd	tbd	tbd
Future investments				332	312	312
Teaching professionalisation (sub-total)	127	147	147	147	147	147
1. Develop Learning Assistant Programme (CES)		20	20	20	20	20
2. Develop (short) customised courses (CES)	56	56	56	56	56	56
3. Designing 2 additional SUTQ tracks (CES)	56	56	56	56	56	56
4. Support initiatives regarding peer review and teacher community (Policy development regarding (HR)	15	15	15	15	15	15
Global Citizens (sub-total)	150	150	150	150	150	150
1. Support International Curriculum for faculties (CES)	50	50	50	50	50	50
2. Support exchange programmes and international partnerships (CES)	100	100	100	100	100	100
Talent development students (sub-total)	35	132	331	388	403	403
1a. Develop a UTalent Hub (S&P)	22	22	38			
1b. Expanding activities career services (CES)			90	90	90	90
1c. Develop and initiate the minor student teams (AZ)			30	30		
1d. Offering GoodHabitZ to students (HR)			25	25	25	25
F.I. Increase the number of student teams (M&C)				tbd	tbd	tbd
2. Employ several supportive activities regarding coaching (S&P/CES)	13	20	58	58	58	58
3. Expanding support mental health (CES)		90	90	135	180	180
Future investments				50	50	50
Total costs	521	658	1.045	1.379	1.374	1.374
Central budget	506	599	1.030	1.293	1.293	1.293
Difference budget – costs	-15	-59	-15	-86	-81	-81

Yellow shading = measure already part of spring memorandum 2019-2022 (appendix I)

Green shading = new investments

F.I. = future investments

tbd = to be decided

Appendix 1: screenshots from spring memorandum 2019-2022

Supportive activities per quality agreement programme	k€
<i>Programme Community building</i>	37
Need analysis and coordination regarding home bases	37
<i>Programme Learning facilities</i>	172
Improvement of learning spaces	Pm
Facilitation use of e-learning	112
Implementation digital assessment infrastructure and processes	60
<i>Programme Teaching professionalisation</i>	127
Development tailored programmes for teaching professionalization and support initiatives regarding peer review and teacher community. Additional staff to coordinate SUTQ.	112
Policy development regarding strengthening expertise on educational improvement and rewarding teaching achievement	15
<i>Programme Global Citizens</i>	150
Support International Curriculum for faculties, expand exchange and international partnerships	150
<i>Programme Talent development students</i>	34.5
Need analysis of coaching	12.5
Policy orientation talent development	22
Support career preparation of students in collaboration with faculties (further development Career Service)	Pm
<i>Grand total</i>	520.5

Benefits	2019	2020	2021	2022
Faculty of Engineering Technology	448	508	885	1,097
Faculty of Electrical Engineering, Mathematics and Computer Science	391	444	772	980
Faculty of Science and Technology	539	706	1,146	1,429
Faculty of Behavioural, Management and Social Sciences	659	765	1,329	1,654
Faculty of Geo-information Science and Earth Observation	35	55	100	136
Central budget	506	599	1,030	1,293
Grand total	2,588	3,077	5,262	6,589