

## TU/E EDUCATION INNOVATION FUND 2018 – CALL FOR PROPOSALS

### Theme 2018

Our university has been successful in attracting more students and a more diverse student population in recent years. As a result we currently face an increasing student-teacher ratio. At the same time we want to maintain high quality teaching, stimulate typical (hands-on) engineering education processes, and enhance personal interaction in our teaching, with the long term aim to educate the ‘engineer of the future’. These ‘new’ engineers face complex challenges that are multi-disciplinary by nature, and that require creative and innovative thinking and practical skills. Their education is thus not only about acquiring theoretical knowledge in large lecture settings, but also about applying and developing knowledge through practice while reflecting. We do not necessarily want to test abstract knowledge, but assess whether students are able to apply this knowledge hands-on and in context.

One way to develop knowledge is to work with hands-on education, and we have the ambition to do this throughout the curriculum. This type of education is intended to foster intrinsic motivation and stimulate deeper learning. Moreover, through (interdisciplinary) teamwork students can learn from their peers and gain knowledge in a broader and more sustainable way. It is however still important to assess the knowledge and skills students gather during these learning activities and assignments. Whilst a digital assessment system has been introduced, it would be interesting to know what possibilities exist to address the above mentioned challenges. As a way to support the new digital assessment system and to conduct experiments on the scalability of these assessments.

**For the innovation fund of 2018, the 4TU.Centre for Engineering Education (4TU.CEE<sup>1</sup>) especially welcomes:**

- 1. Innovative proposals regarding the assessment of knowledge and skills during hands-on engineering education. Projects may be conducted within the new Innovation Space, connecting at least three different departments and possibly in collaboration with partners from industry, but also in more regular settings (e.g. labs, practicals).**
- 2. Innovative proposals to assess the application of knowledge in a digital manner**

However, if you have an innovative idea that does not fit within these two topics of the call, but fits the educational vision of the TU/e in more general terms, you are also encouraged to submit your proposal. If the budget allows, it will also be judged for funding.

### Funding

Similar to previous years, a total amount of €250.000<sup>2</sup> will be available in the TU/e Innovation Fund for innovation projects that fit the themes of this call as stated above.

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<sup>1</sup> 4TU.CEE manages the Innovation Fund for Bachelor College and Graduate School. The assessment committee provides advice to the Deans Bachelor College and Graduate School. The definitive awarding of the project funds is done by the Deans Bachelor College and Graduate School.

<sup>2</sup> Funding can be used to pay the salary of student assistants, temporary employees and/or out-of-pocket costs. The money may not be paid as a bonus. The Bachelor College and Graduate School assume that the applicants will themselves bear the costs over and above the contribution from the Education Innovation Fund, in accordance with the proposed budget.

These innovations may pertain to either the bachelor phase, the master phase, the postmasters phase (PhD, PDEng) or they may apply or be relevant to all phases.

Projects may be aimed at a single educational occasion or at parts of a curriculum covering multiple courses. Projects that are collaborative by nature, that is collaborations between several departments, are especially welcome.

Individual proposals in the context of AUTIQ<sup>3</sup> are also welcome. If sufficient proposals are submitted, part of the budget will be reserved for such projects, provided the quality is deemed adequate.

## Writing support

Once you have identified your particular idea/theme, and you need partners or need a sounding-board, you can visit the writing support hours. Two of these sessions are being held (see below). However, if these timings do not suit you, please do not hesitate to contact Chantal Brans ([c.brans@tue.nl](mailto:c.brans@tue.nl)).

**When:** 14 September  
25 October  
**Time:** 14.00 – 16.00  
**Where:** Traverse 3.43

## Who can apply

Innovative teachers, support staff and educational managers can submit project proposals. The proposal has to be (at least) co-signed by the teachers of the involved course(s). Interdepartmental applications are highly encouraged, and (as stated earlier) individual proposals in the context of AUTIQ are also welcome.

## Application

Project proposals can be submitted in English until 1 November 2017 by e-mail via [4TU.CEE@tue.nl](mailto:4TU.CEE@tue.nl). Questions and remarks can be sent to Chantal Brans, 4TU.CEE coordinator, via [c.brans@tue.nl](mailto:c.brans@tue.nl).

## Proposals

The project proposal must provide the committee with a clear idea of what the project is about (“what”), why this is a “relevant and urgent” problem (“why”), and how it will be conducted (“how”). The proposal must consist of the following:

### 1. Project Title and Applicants

The project application must clearly state that the project is submitted with the support of the department(s) or capacity group(s). If the project has dependencies with other faculties, departments or teachers, they have to be applicants as well.

### 2. Background and justification of the project

What problem or issue is addressed by the project? What problem needs to be solved? Why is this a problem. What knowledge is already available in this matter (previous projects / literature)?

### 3. Objectives and expected outcomes of the project

In the application attention must be paid to the educational principles of the innovation, and a reflection on the results and dissemination activities must be clearly outlined. Because these funds are part of the 4TU (supported by the government) and are assigned to the 4TU.CEE, a presentation at a (4)TU session organized by 4TU.CEE is a compulsory part of the dissemination activities. Moreover, all projects and their products will be disseminated via the 4TU.CEE website, and all products developed in the projects will have to become freely available to all TU/e lecturers. Reporting therefore has to be in English.

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<sup>3</sup> More information on AUTIQ: please contact prof. dr. Birgit Pepin ([b.e.u.pepin@tue.nl](mailto:b.e.u.pepin@tue.nl)).

**4. Project design and management**

What activities will be undertaken, and in which order? What is the timeframe of the project? How will success (or failure) be visible or established? Are there any risks for the project?

**5. Dissemination and sustainability of the project**

The application should have a clear sustainability strategy for the project. Who will keep using it, and who are the potential users once the project has been successful? How are these potential users going to be informed about the project, its progress and the outcomes? Part of the conditions of the innovation project funds are project presentations at 4TU.CEE meetings. Your project and outcomes will be disseminated on the [4TU.CEE Innovation Map](#) as well.

**6. Project budget**

The Bachelor College and Graduate School assume that the applicants will themselves bear the costs over and above the contribution from the Education Innovation Fund, in accordance with the proposed budget.

**7. Signing**

The proposal has to be signed by the main applicant and his/her director of department (managing director) or Service, but also by teacher(s) of the course(s) involved.

## Assessment

The submitted projects will be assessed according to the following criteria:

- The project fits with the theme(s) of the call and/or the TU/e educational vision.
- The project has a clear aim and problem description.
- Projects, experts and experiences from the past within and outside the university are incorporated in the proposal.
- The project is innovative with respect to education (new teaching method, new tool, application of existing tool to new context, etc.).
- The design of the project is suitable and feasible.
- The project outcomes are clear.
- The project outcomes can (easily) be applied to other domains, departments or contexts.
- The application has a suitable dissemination and/or sustainability strategy. Projects that are proposed by or involve multiple departments will be prioritized.

## Assessment committee

The project funds will be assigned under the responsibility of the deans of the Bachelor College and Graduate School, based on advice/judgment by an independent jury consisting of an educational innovation expert, a member of the TU/e Executive Board, a departmental director of education and a 4TU.CEE member (secretary).

## Timeline

<b>What</b>	<b>Responsible</b>	<b>Deadline</b>
Writing support hours	All	14 September 2017 14.00 – 16.00
Writing support hours	All	25 October 2017 14.00 – 16.00
Submission of proposals	All	1 November 2017
Reviewing proposals	Committee	November 2017
Selection of proposals	Committee	November 2017
Awarding project funds	Deans BC & GS	December 2017
Kick of meeting projects	Projects	12 January 2018
Projects meeting	Projects	September 2018
Final evaluation and report	Projects	December 2018
End presentations	Projects	February 2019