



Proposal for TU/e Innovation Funds 2021

“TU/e Education for Sustainability:

Strategy and Implementation”

Initiation and Strategy Development

Empowering the students of today to create the world of tomorrow

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Introduction

On March 1st, 2021, TU/e innovation Space (innoSpace), Technology for Global Development (TGD) and GO Green Office (GGO) submitted a 3-year project proposal for TU/e Education Innovation Funds 2021, titled "TU/e Education for Sustainability: Strategy and Implementation". The overall goal of this proposal is fully in line with the first major challenge of TU/e Strategy 2030: the Sustainability Challenge.

The proposed project aims to co-create and implement an improved embedding of Education for Sustainability for all TU/e students. The project was divided in three phases: research, strategy development and implementation.

The proposal was evaluated by the TU/e Education Innovation Funds Committee as a very relevant project for TU/e, therefore, a more concrete proposal was requested for the first project phase.

The present proposal clarifies the necessary work packages for the first year: an initiation phase and the strategy development phase that was planned for the first year of the project. The basic result of this first year should be shared vision on the knowledge and competences our students needs regarding (global) sustainability. In addition there will be a clear plan on how to implement this vision in our education.

The proposal will be executed by a dedicated working group, the *Education for Sustainability Task Force*. This task force consists of a *working group*, composed by a project leader and a supporting team of student assistants, and a *sounding board* with senior members of each of the proponent organizations - GGO, innoSpace and TGD. The Task Force reports to a *steering team* of the deans of Bachelor College and Graduate School and the scientific director of TU/e Innovation Space.

Initiation Phase Work Packages

The initiation phase aims to define the TU/e position (“where we want to stand”) regarding Education for Sustainability. For that purpose, there is a need to establish a validated competence framework, investigate the present TU/e education offer, compare TU/e with its peers and co-create a shared vision for TU/e. Based on these actions we define 4 main work packages in this phase as described below.

Establishing a competence framework

In order to investigate the present TU/e position (“where we stand now”) and to define the desirable future University position (“where we want to stand”), the first step must be to establish a competence framework. This framework should be a research-informed model that provides the foundational criteria that guides the initiation phase.

Hence, the first step will be to review and analyse the existing scientific literature on validated frameworks and to shortlist the most adequate options. Based on this a proposal should be made to the steering team, which will decide on the framework to be used.

To come to a good shortlist and proposal it will be important to involve researchers with a background in this field in this phase: we do not plan to make a complete scientific overview of all the options, but still a structured, well informed approach will be needed.

Deliverables:

- Overview of (scientific) literature on available, state of the art frameworks
- Benchmarking report of frameworks used by peer institutions
- Motivated choice of framework to be used

Present Position

The chosen validated framework will help defining the present TU/e position on Education for Sustainability by investigating and evaluating the current educational offer. This analysis will clearly expose the strong and weak points of the present situation that will serve as the basis for the following co-creation sessions. It will also show where we can build on present strengths.

A first qualitative analysis (without a framework) done by TGD, in 2019, for the “Position Paper to the Executive Board on Technology for Global Sustainable Development at the Eindhoven University of Technology” can be used as an inspirational example for this step. The report, that included TU/e position and benchmarking, had the following conclusion: “*We can conclude that TU/e lags when compared to its peers on linking to Sustainable Development Goals on a global scale in its education and research.*” This was also confirmed in a study by the GO Green Office “Education for Sustainability at the TU/e” from November 2020.

Deliverables:

- Evaluation report of position of TU/e versus the chosen framework

Benchmarking

The same framework will also help defining the present TU/e position in comparison with other relevant national and international Universities by investigating and evaluating their educational offer and the sustainability embeddedness in their institutions. This analysis may provide good practices and new ideas that can be adapted to the TU/e community.

Deliverables:

- Evaluation report of position of peer institutions versus the chosen framework

Dialogue

In order to create a shared vision, it is important to consult an inclusive and diverse circle of relevant stakeholders that can contribute with their perspectives, needs and expectations. For instance, professors, researchers, students and external business or industry partners can contribute for a more comprehensive strategy.

Therefore, several co-creation sessions should be organised to give the opportunity to these stakeholders to give their input and be part of the decision making. We expect there to be at least five of such sessions.

The expected final product of the dialogue step is a shared vision about where TU/e would like to stand as a University on Education for Sustainability that will serve as the foundation of the strategy development.

Deliverables:

- Co-creation sessions with students and staff
- A compact shared vision of where TU/e wants to stand

Strategy Development Phase Work Packages

The strategy development phase will translate the input from the co-creation sessions into a coherent and actionable Education for Sustainability Strategy. For that purpose, the *Task Force* will be responsible to write the overarching document and consult relevant TU/e stakeholders until a final version is widely accepted and ready to be approved by the steering team.

Key Elements definition

As a first step the *Task Force* will define the competences which our students will need. Based on these, key elements for increasing the Education for Sustainability embeddedness at TU/e can be defined. This step results in a list of elements with a high-level description.

Scalability will be a key point in choosing the right options.

Deliverables:

- Knowledge and competences our students will need at the different levels
- Overview of key elements for future education; including priority.

Note: we believe that at this time the type of element should be left open. E.g. it could be courses shared by all students, but it could also be a very structured support for staff to embed sustainability stronger in existing courses.

Co-create key elements.

The *Education for Sustainability Task Force* will develop the basic structure of each element in terms of content in cooperation with the relevant TU/e community stakeholders. Also, the taskforce will develop an implementation plan for these initiatives that include the necessary human, capital and infrastructures resources.

Most likely, pilots will be developed during this phase, which can start running in the next year.

Deliverables:

- Detailed content and implementation plan for all elements
- Developed pilots, ready to be executed

Development plan second year

Early in the strategy development phase a plan will be submitted for the implementation of the Education for Sustainability Strategy in the next round of the TU/e Innovation Funds. This next round will already include pilot activities.

Deliverable:

- Plan for second year; including project structure, required resources etc.

Project management

Organization

The project is proposed to be positioned within TU/e innovation Space.

The *Education for Sustainability Task Force* will consist of:

- A working group with a project leader and student assistants
- A sounding board of senior members of the proposing organizations: GGO, innoSpace and TGD. As the project develops there might be new members in the sounding board.

We propose the following steering team for the project:

- Dean Bachelor College
- Dean Graduate School
- Head Education Policy
- Scientific Director of TU/e innovation Space

The working group should give a monthly update to the steering team (a good moment will be the existing policy meeting at TU/e innovation Space where all steering team members are present). The steering team decides on whether deliverables have been met and takes the key decisions during the project.

Timeline



Budget

Role	Estimated [hours/week]	Rate [€/hour]	Months	Total Cost [€]
Project Leader	16	44	12	38 000
Student assistant(s)	16	25	12	22 000
Other expenses (e.g. material resources for co-creation sessions)				10 000
Total				70 000