

Vision on internationalisation

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This vision was created by the internationalisation working group. Talks with many different parties are the basis of this. We have spoken to representatives of international student associations, student psychologists, Dutch TU Delft students and, of course, several international students.

This document is translated from the Dutch document “Visie Internationalisering” from ORAS. The Dutch document will always be leading when conflict arises about the interpretation of both documents.

1 Introduction

In the past couple of years the number of international students at TU Delft has increased significantly, with 20% of the students being international in 2017. With this change, a vision from ORAS is needed. ORAS represents all active and motivated students, in particular the active and motivated international students. On the one hand, this vision document will discuss the needs of international students and how TU Delft should act in reaction to these needs. On the other hand, a few dilemmas that have been, and are being, encountered will be discussed. Internationalisation has benefits, think of increasing diversity, a possible higher quality of education and a better international reputation of TU Delft. However, internationalisation can also raise some difficult questions. Ideally, we don't want to make a difference between Dutch and international students, this ambition causes some practical dilemmas though. For example, the influence of an increasing amount of international students on the unique student culture in Delft or which students should be admitted to TU Delft when there is a limited capacity. Moreover, it is important that international students feel at home at TU Delft. This ORAS vision document tries to answer the current questions about internationalisation. This will happen at a relatively abstract and conceptual level. The specific actions to be taken will be elaborated on in the long term implementation scheme, which will be made based on this vision.

This vision of internationalisation will consist of three parts. Firstly, a few definitions of concepts that occur often when discussing this subject will be specified. This document will use definitions for which one will have a gut feeling of what it means, but no clear definition. Since these concepts are essential for this vision and to avoid ambiguities, a definition of these concepts according to ORAS will be given. Especially the core definition of “healthy balance” is important, which will be elaborated in appendix A. Secondly, the general position of the TU Delft according to ORAS will be discussed, This will be the basis on which TU Delft should act. Enclosed is a reflection on how the general vision of ORAS relates to international students.

The last section of this vision will go into the practical aspects of internationalisation. This will be done chronologically. Starting at the moment an international student considers coming to the TU Delft and ending when the student graduates. There will be explained how the internationalisation transformation of the TU Delft could go smoothly and in which way international students need extra assistance.

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2. Definitions

This chapter will deal with different definitions that will be used throughout the vision and for which it is beneficial that they are specified separately. With many of these definitions, the interpretation could differ from person to person. Therefore, for clarity and consistency, these definitions will be specifically defined below. These are not the only interpretations that are in use for these definitions, however, they are the interpretations that will be used in this vision. The definitions will be written in italics throughout the remainder of this vision.

The Delft engineer

The typical 'Delft engineer' is an ideal characteristic to TU Delft Alumni. Plenty of differences exist between the home culture of international students that study in Delft and the Dutch culture. ORAS believes that, despite these cultural differences, all TU Delft students should strive to be a 'Delft engineer' once they have graduated. The Delft engineer is characterised by the following attributes:

- Problem-solving and analytically very strong
- Multidisciplinary
- Critical and innovative
- Ambitious
- Active and socially involved
- Able to work (together) in an international working environment.

These attributes are, up to a certain extent, taught within the curriculum. However, a significant portion of the development to be a Delft engineer takes place through extracurricular activities, such as teamwork and problem-solving. This is partly made possible by the Delft student culture.

Healthy balance

The healthy balance is a common term being used by staff members when discussing the composition of the student population concerning internationalisation. ORAS reads this term as being a 'spectrum of health'. This means that when the percentage of international students is within certain margins, one would see a healthy student population that provides the basis for broadly developed *Delft engineers* to be educated. When the percentage moves outside of the margins, the appropriate actions will be taken to steer towards a more healthy balance. In this matter, one would look purely at the quality of education and the interaction of students amongst themselves. This means that the healthy balance is independent of the law or moral duties (such as the role of the TU Delft being a Dutch educational institution).

According to the definition of the *Delft engineer*, a broadly developed *Delft engineer* should be able to work together with people of different cultures. The lower boundary of the healthy balance lies in the percentage at which students learn this. The upper boundary is set at the point from which the Dutch character of the university and the development of the Delft engineer start to fade. The more benefits students gain from the composition of the student population, the 'healthier' the student population is.

Appendix A discusses the healthy balance in more detail.

The moral duty of the TU Delft towards the Netherlands

The social challenges of the Netherlands (and the world) keep on requiring more and more technical solutions. Consequently, technical universities have the important task and responsibility to educate engineers. While the social need and the demand on the job market is present, the Dutch government has the responsibility of providing education to all Dutch students that want to pursue education in a technical field. The TU Delft is a Dutch university and is largely funded by the Dutch government. Therefore, the TU Delft has a partial responsibility to provide education for the demand of engineers in the Netherlands. The TU Delft should, to a reasonable extent, educate as many Dutch engineers as there is demand.

Dutch culture

The Dutch culture is one of a kind and could show large differences from other cultures. ORAS reads attributes of the Dutch culture to be at least, but not exclusively, the following:

- Directness/not afraid to ask bold questions
- Punctual
- Personal responsibility
- Project-oriented approach in education

The Dutch culture is strongly intertwined with the educational style of the TU Delft. This results in both positive and negative effects on education. It is of importance that increasing the internationalisation of the TU Delft does not result in the loss of these positive effects.

Delft student culture

Delft has a unique and actively engaged student community. The many study/student/sports associations organise a lot of activities in a broad variety of different fields. This engaged and entrepreneurial atmosphere could be a surprise, especially for international students, and be difficult to actively engage in.

Delft housing culture

The housing culture in Delft is different from the culture that one experiences while studying at the TU Delft. The majority of Dutch students is happy to adapt to an international atmosphere at the university and during their studies. On the other hand, a lot of Dutch students prefer to be able to speak Dutch when they are at home and to live according to Dutch customs and habits. Delft has single-person housing options but in general, it is more common to live together with multiple people. Subsequently, people value the Dutch customs in their household, such as eating together, doing activities together, etc. This results in Dutch students being more hesitant in living together with international students.

Academic competences:

Competences that belong to the academical nature of a technical university:

- Problem-solving and analytical mindset
- Critical attitude
- Logical reasoning
- Argumentation skills
- Technical/scientific writing
- Subject-matter knowledge
- Socially conscious
- Multidisciplinary collaboration

Non-academic competences

Competences that do not specifically belong to the academical nature of a technical university.

Nonetheless, these competences are essential to becoming a broadly developed engineer.

- Project management
- Logistical management
- Providing and receiving feedback
- Social skills such as presenting, networking, collaborating and communication
- Entrepreneurial
- Being assertive

3. General position TU Delft according to ORAS

This section will mention what, in an ideal situation, the general position of TU Delft should be. These are the core values that are the basis of the actions of TU Delft.

3.1 Composition student community

TU Delft is a Dutch university in Delft that has a *moral duty* to supply the Dutch need for graduates in various scientific areas. Students are being prepared to work in a multicultural and international environment. This will be stimulated in the curriculum.

To stimulate the multicultural and international work environment, the TU Delft strives to attain a student culture with a *healthy balance*. This will preserve the Dutch character on the one hand and will enhance the diversity and mix of different cultures on the other hand.

3.2 Openness for international students

TU Delft is open to every international student with the right prerequisites. That is, having a suitable educational diploma (and matching intellectual capacity) and possessing an academic level of the English language.

Studying at the TU Delft should be hindered as little as possible by a student's financial means. Tuition fee should not be used as a restrictive measure because of the limited capacity of TU Delft. However, no money from the Dutch government should be used to cover costs for non-EER students. Tuition fees for international students should therefore be cost-covering.

3.3 Selection in the case of limited capacity

As written in section 2, TU Delft has a *moral duty* towards the Netherlands to educate engineers when there is a need for them. However, this does not mean that Dutch students always have priority when it comes to admitting students in a limited capacity situation. Motivated and talented international students could enhance the quality of education. Therefore, one should strive to find a balance between the *healthy balance* and the *moral duty of TU Delft towards the Netherlands*.

ORAS believes that if an English bachelor has a limited capacity which leads to a selection, at least one of the following two criteria should be met:

1. A (large) majority of the Dutch applications should be admitted;
2. A (large) majority of the students in the bachelor is Dutch.

The first criteria will ensure Dutch people are represented in such a way the TU Delft fulfils her *moral duty towards the Netherlands*. While the second criteria make sure this *moral duty* does not lead to an unconditional priority of Dutch applications above international applications, which would lead to a suppression of the international students. In this way, the *healthy balance* is protected. Without this second criteria, an English programme could be filled entirely with Dutch people when there is a large surplus of Dutch applications compared to international applications.

The exact magnitude of this majority depends on different factors. First of all, one needs to make sure the *healthy balance* within the study programmes is protected. Secondly, the *healthy balance* at TU Delft as a whole is of great importance as well. Note that the ratio of the TU Delft wide *healthy balance* could differ from the study programme specific ratios. This makes sure the Dutch character of the university and the qualities of the *Delft engineer* are not in danger. This *healthy balance* should be preserved using trial and error and could change over time. Lastly, the size of the majority is also depended on the demand of the job market in the Netherlands for graduates of specific study programmes.

When there is a surplus of applications in a TU Delft master, all TU Delft bachelor students should have priority in being admitted. The remaining spots will be distributed through selection. Besides the selection criteria, the *healthy balance* should be considered as well.

When a certain group of international students dominates others, measures should be taken. At that moment selection on nationality could be put in place to promote diversity, provided that the quality of the student society is maintained.

3.4 Language of TU Delft's bachelor and master programmes

Bachelor programmes are in Dutch and only switch to English when this adds value to the study programme. Master programmes are in English unless a good reason exists for the programme to be in Dutch. For example, when the language used in industry for graduates of this study programme is predominantly Dutch.

3.5 Culture at the University

The TU Delft is an international university with a strong Dutch character and handles decisions according to Dutch values. This comprises that the TU Delft educates students to become a 'Delft engineer' and stimulates Dutch student culture. The current characteristics of such an engineer can change with the percentage of international students in the student population. Positive changes should be stimulated and facilitated by the university, and negative changes should be prevented. Apart from applying authentic values, the TU Delft should be an open university for new ideas from anyone. Also, the TU Delft should create an environment where every student can feel at home, and diversity and respect are important values.

3.6 Information communication

The communication of information towards potential new students and students currently studying here is excellent. According to ORAS, good communication of information is a crucial step for a smooth development within internationalisation.

3.7 Studying at the TU Delft

Students that are admitted to the TU Delft should know what a 'Delft engineer' comprises and have the potential and ambition to become one. This translates to the TU Delft ensuring that international students know what environment they enter in Delft. In this environment, it is encouraged to take part in extracurricular activities and there is more to studying than just passing courses.

3.8 Alumni of TU Delft

The TU Delft aspires for all students, Dutch and International, to possess the same set of qualities of the 'Delft Engineer' after graduating. International students look back happily on their time in Delft.

4. Consequences for the international student

Within this chapter, the practical meaning of the initiatives of the TU Delft described in the previous chapter will be described in more detail. The different applications of the initiatives and how the international students are involved will be discussed. To give a complete picture, chronological order of the study time at TU Delft of an international student will serve as a red thread. 3 different phases are identified: 'Before the arrival of students', 'the arrival of the student' and 'during the study period of the student'. Ideally, international students are treated in the same manner as Dutch students after their study period, which is why this phase will not be discussed.

4.1 Before the arrival of the international student

The phase starts the moment a student decides he is interested in studying in the Netherlands. Here, the emphasis lies on the potential interest, as the student is still forming its opinion on whether or not to study here. This section will discuss what a student should know about the TU Delft and how the TU Delft should ensure this on an organizational level.

4.1.1 Communication of information

To ensure international students successfully enrol and study at the TU Delft, they should possess correct and complete information about the TU Delft to make a considered decision.

The information should be clear and be provided to the students at one central place on the internet. In the paragraphs below, it will be elaborated what information is redeemed necessary in the eyes of ORAS.

Expectations of study content

First of all, every student should know what is expected from him/her the moment they start to do a degree at the TU Delft. The student in question is aware of the qualities of a Delft engineer and the study environment as discussed in the previous chapter.

Apart from the general info, each study programme has clear information on the application (and selection) criteria, what the curriculum comprises and what prior knowledge is expected. This is also defined per course within the study programmes, as well as the assessment method. There are a clear overview of (standard) electives well in advance of the start of the academic year.

Besides, the study environment at the TU Delft is also clear to prospective students. An example of this is the large incorporation of collaborating and encouraging a proactive attitude in classes within the educational system. In general, a high level of independence is expected of students. Lecturers are open to discussion and questions, but the student should take initiative.

Tuition fees

All information with regards to tuition fees is clear as well. Students know the tuition for the full nominal study period when they start, to ensure no student is forced to pay significantly much more fees without foresight. Apart from the tuition fees, a clear indication is given of any extra costs.

Student life in Delft

Studying in the Netherlands not only means being involved in the educational system but in Dutch culture and the student life in Delft as well. Before arrival, international students are well informed about Dutch culture and the culture of students in Delft. Students are informed about the importance of participating in the introduction period, where they first encounter the described cultures. The organisation of the introduction period is discussed in section 4.2.

Housing

With regards to housing, all international students are assisted with signing contracts and prevent exploitation. There are enough (fitting) housing options for all students and they can find this information in English in a clear manner. There is a central point to find all housing options. They are notified in time if there is a housing shortage. What's more, is that students are informed about the specific culture of student housing in Delft. The organisation role of the TU within this topic is discussed in section 4.1.2.

4.1.2 Organisation within the TU Delft

In order for international students to be able to come to the Netherlands, a number of organisational aspects need to be realised.

Admission requirements

As discussed in section 3.2, the TU Delft is open to all international students that possess the required qualifications. These requirements consist of an adequate prior education (and its complementing intellectual capacity) and an academic level of English.

These requirements are in place to ensure the right students to be admitted. On the other hand, protect these requirements the students themselves by not admitting them to a programme beyond their capacities.

Selection for limited capacity

At limited capacity, the selection is necessary to bring the student population to the level that a faculty can manage. When setting up a selection procedure, a balance needs to be established between the moral duties of a Dutch university and the *Healthy balance* within the student population. This is further elaborated in section 3.3.

Besides, if any group of international students appears to dominate the complete international student population, specific measures can be taken to improve diversity. In that case, selection may be based on nationality and registrations can be controlled in favour of diversity, on the condition that the quality of the student population will not degrade.

The central point of information/facilitating Q&A

The information that should be conveyed to the international students is clear and is stored in a central point of information. For every international student, it is clear where to find information.

Housing

The TU Delft monitors the amount of admitted students and the availability of housing. Based on this information, the TU Delft can make predictions on any possible deficits and will communicate this in time to prospective international students. The TU Delft does not have the responsibility to ensure enough housing but does have partial control over the actions of the municipality and housing organisations. This comprises regular contact between the TU Delft and these organisations, as well as reporting deficits and proposing solutions to ensure housing availability. To improve the integration, it is preferred to stimulate housing organisations to offer diverse housing types, for instance not only individual but also group housing.

4.2 The arrival of the international student

The next step is the arrival of the student in Delft. What information should be available for the students at this point and how should the university be organised to facilitate the international students during the introduction period?

During the introduction period, international students get their first taste of Dutch culture. There are a few aspects that need to be highlighted during this period to make sure the integration of international students goes well.

Awareness of international students by Dutch students

The TU Delft values the intercommunication of students with different cultures. Explicitly in students learning to collaborate on an international level, for example, to be able to respect and work with cultural and professional behaviour differences. Dutch students know the characteristics of the Dutch culture, and how this could be odd and unsettling to international students. Furthermore, Dutch know how to interact with other cultures, both inside and outside their education.

Bicycle culture

International students can participate in the bicycle culture of Delft without causing dangerous situations to themselves and their environment. During the introduction period, they will be informed about the rules of traffic and where to buy the right bike.

Central introduction

For all students starting their education at TU Delft, there is an introduction period upon arrival. The introduction period focuses on integration between all students. The introduction offers all students easy access to every aspect of the Delft student life and all information to find your way around Delft. Subsequently, an additional program for international students will be offered. This additional program will provide specific information necessary for international students. For example, how to open a bank account, how to get insurance and more of these practical concerns. These programmes can accommodate every student and students are strongly recommended to attend.

Study-specific introduction

It is important to not only have a central introduction but to also have a study-specific introduction. A study-specific introduction is important for a student to get to know their study environment and to get to know their peers. It is important to get introduced to the other students one will be working together with for the next couple of years and also the people one has to have a fun time with. This possibility to meet in smaller groups and to promote the integration of Dutch and international students is of great interest for the beginning of someone's study time. The TU Delft is responsible for the fact that these programmes are organized, and can outsource this to student organisations.

4.3. During the study time of the international student

The third section will elaborate on the organisational structure for international students that is needed during their education in Delft. There will be made a distinction between education and non-educational content.

4.3.1 Educational content

Feasibility of education

Internationals have the necessary content and academic prerequisites at the beginning of their bachelor or master in Delft. Before starting their studies in Delft they are informed on the required prerequisites and they get access to study material to get up to the required level. Consequently, international students do not lack knowledge with respect to students that did their bachelor in Delft. Therefore, they should be able to follow their education without extra effort. The bachelor/master degree could be finished in the nominal time, without excessive hours. International students do not feel extra pressure compared to Dutch students. Therefore, there will be enough time left for everyone to be able to do extracurricular activities, sports and work on personal development.

Application of learning objectives

Internationals students that graduate from the TU Delft have almost no difference in academic competences compared to Dutch students. The learning objectives are formed such that the difference in competences at the beginning of the study will be straightened at graduation.

The TU Delft offers a multicultural working environment in which all students learn to work together with people of different cultures. This also applies to Dutch students that can work together with international students, and the other way around. Being able to work together with people of different cultures and being prepared for the international job market is a learning objective for everyone.

Besides academic competences, value is attached equally to non-academic competences. Not every student, that studies in Delft, has the characteristic features of a *Delft engineer*. Where necessary, learning objectives will be extended so non-academic skills, that the *Delft engineer* should have, are added to the curriculum. Furthermore, students will be stimulated and facilitated to improve these objectives outside of their studies by getting involved in extracurricular activities (See 4.3.2 extracurricular activities).

Integration within the education

Within the curriculum, the *Delft engineer* will experience different working methods of different students. Special attention will be put towards the collaboration of Dutch and international students. ORAS sees the benefits of a balanced division of project groups, where nationality, gender and competences are taken into account.

Study counselling

The study counselling services offered by the TU Delft are well equipped to deal with the wishes and problems of the international students. When necessary, students will be stimulated to use these services on time. Every student can use the services without a long waiting time.

4.3.2. Non-study related affairs

Extracurricular activities

Delft offers a wide variety of extracurricular activities. International students are not only familiar with the available options but are also aware that, according to *Dutch culture* and the *Delft student culture*, it is very much encouraged to participate in extracurricular activities. It is good to emphasise that these activities offer a great opportunity for integration.

Participation of international students in extracurricular activities is limited as little as possible due to financial or legal reasons. Solutions for this could be a pay-per-course structure or a tuition-free board year.

Organisations that are actively sponsored by the TU Delft are, whenever their target group is international, open to international students and have English as their main language. This also applies to study associations, both for Bachelor and Master students.

Originally, Dreamteams are student initiatives. Therefore, existing Dreamteams should have autonomy over who is admissible. It should, however, be pointed out that Dreamteams play an important role in the image of the TU Delft. In that sense, they should be stimulated to be open to international students. Guidance to set up a new Dreamteam should be open to all students.

Student associations are, to a certain extent, independent of the TU Delft. Therefore, they have full autonomy over their association. ORAS does believe that the spoken language of an association should not be a limitation for students to join. Student associations are encouraged to include international students, but should not be obliged. ORAS is committed to a united student culture, where all student and study associations, both Dutch and international, actively cooperate.

Sports and culture centre:

The university's sports and culture centre 'X' is open to all students and has English as its main language. Every discipline of sports or culture that has an association linked to it, has an association that is open to international students. All classes and lessons taught at X and all the necessary online information are communicated in English.

Buddies/Dutch language courses

Student and study associations actively offer guidance for studying to students. ORAS sees the benefits of a buddy network in which international students come into contact with Dutch students and with each other.

ORAS believes that every international student should have the opportunity and should be encouraged to learn the Dutch language for free. Whenever this is available, it should be communicated to the students clearly.

Preparation for the job market

Students should have a clear overview of what the job market has to offer and what living and working in the Netherlands is like. Especially when the demand on the Dutch job market is high, students should be aware of this. It is up to the student to determine what they do after graduation.

Appendix A: Elaboration Healthy balance

The concept of 'Healthy balance'

Healthy balance is a term commonly used at the TU Delft to describe the ideal ratio of international students versus Dutch students in the student society of Delft. According to ORAS, this balance is found when the composition of the student community contributes to the delivery of broadly developed *Delft engineers*. In this concept, only the quality of education, the interaction between students and the delivery of *Delft engineers* is considered. This means that the ideal balance is independent of legal or moral obligations, such as the role of TU Delft as a Dutch educational institution.

When defining the healthy balance, the influence of the percentage of international students on the quality of education is considered. It should be stated that a healthy balance is a desired, but not a necessary ratio. Strict measures should only be taken in extreme cases.

Advantages of an increase in international student numbers

The greater the percentage of international students, the more "present" they are in the student population. It will make Dutch students more aware that TU Delft is an international university. Also, an increasing share of international students will have positive effects on student behaviour and student culture.

Attempts have been made to link percentages to the moment when effects will play a role, but this proves to be difficult. The exact percentages differ per field of study and per moment in time. However, to still provide some basis of action, the foreseen effects are arranged in a "health spectrum" (see Figure 1), where the start of each effect is indicated by a letter. To get an idea, each effect has been attributed to a percentage. This is however only for illustrative purposes. The actual percentages should be found by trial and error.

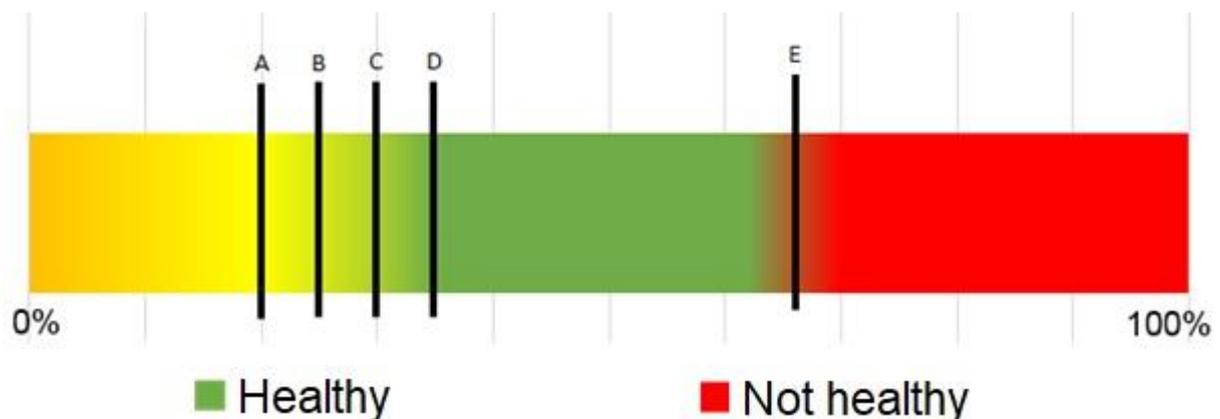


Figure 1: The Healthy balance, based on the percentage of international students

- Intercultural Cooperation within the curriculum. from A (e.g. 20%).

The benefits start from the point that students come into contact more often with other cultures within their studies. It begins in larger project groups in the bachelor phase (e.g. groups of 8), but will also happen in smaller groups as the share of international students rises. Besides, the working language in groups will shift from Dutch to English (in groups of 4/8 Dutch students, they are more likely to speak English than in groups of 7/8).

- Insight into and understanding of other cultures and a broader world view, from B (e.g. 25%)

A second benefit will be that students will comprehend the background of students from another culture and learn how to deal with this. Initially, the collaboration/integration between students will only be in a study-related environment, but understanding will be created nonetheless.

- Englishification of student representation and student infrastructure, from C (e.g. 30%)

The greater the number of international students, the larger the voice of international students should/will be in student representation. In addition, the extracurricular activities and the student societies will increasingly be focussed on international students. This will benefit the integration between different cultures.

- Social integration between different cultures, from D (e.g. 35%, more dependent on diversity)

A final step will be that the intercultural collaboration will spread to non-study-related activities. The greater the diversity in the student world, the fewer people will be inclined to hang out with people of their own culture and therefore the more people "become friends" with people from a different culture. Diversity plays a vital role in this.

Disadvantages to an increase in international student numbers

- Loss of the Dutch character of the university and the dilution of the Delft Engineer, from E (e.g. 65%)

From a certain percentage, the student society will become too international. As a consequence, the Dutch values and the characteristics of the Delft Engineer will start to disappear. At the time of writing, mainly Dutch students contribute to this. Therefore, the smaller the percentage of Dutch students, the less 'Delft' the engineers will become.

Conclusion

To conclude, the healthy balance describes a spectrum of health for the student population of the TU Delft. When the percentage of international students stays within a certain margin, the population can be called 'healthy' in which broadly developed Delft Engineers will be educated. Whenever the percentage exceeds one of the boundaries, the TU Delft should steer toward the margin with stimulative/soft measures. According to the definition of the Delft Engineer, a broadly developed Delft Engineer must be able to work with cultural differences. Therefore, the lower bound lays at the percentage at which this starts to happen. The upper bound lays at the point where the Dutch values and the characteristics of the Delft Engineer start to disappear. This section describes some benefits of an increase in international student numbers. The more benefits are included, the 'healthier' the student society will be.