

Address on the occasion of the Academic Year Opening 2022-2023
By Professor Rob Mudde, Vice Rector Magnificus and Vice President Education
Delft University of Technology
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Good afternoon, and a warm welcome to all of you, here in the Auditorium or joining us online.

And yes, that was the voice of my granddaughter you just heard. Of course, the younger generation is one of our main reasons for existing. But will she herself be studying at TU Delft one day? I am a proud grandfather no matter what, but that would be a proud moment indeed.

Many of you here today have already chosen to come to TU Delft, so now I'd like to bid a special welcome to our first-year students. You are just starting out on your academic journey and we are very happy to have you here.

Hopefully, you have spent the past few weeks acquainting yourself with TU Delft, the campus and the city, and all they have to offer. But no matter how well-prepared you now may feel, going from high school to university is a big step, even under normal circumstances. Academically, socially, financially, emotionally: you enter a different world, with new responsibilities, deadlines and commitments, as well as new distractions and temptations. Coming out of the pandemic makes starting at university perhaps an even bigger step.

The good news is that we are now back on campus fulltime, at the vibrant heart of our university. This is where it all happens, where we meet and teach, and get inspired and feel connected. Coming to campus, taking part, meeting likeminded people as well as completely different people: it is all an essential part of your educational experience. So I advise you to make the most of everything our campus has to offer.

For starters, this is your chance to work with *the* experts in your chosen discipline, and to study your favourite topics with them. What an opportunity!

Moreover, personal development is also very much part of education, and there is a lot to learn outside of lecture halls and class rooms as well. So do take part in sports and cultural activities and in the vibrant student life in the city of Delft. But also remember, if you cannot cope, or are feeling lonely, or encounter any other difficulties, we are here to help you.

So what can you expect from your time in Delft? First of all, we offer you strong foundations. Our heritage goes way back in time, to the mid-nineteenth century. The Royal Academy, as we were then called, was founded in 1842. With 180 years of history, we are built on firm ground.

Over that period, our researchers have enlarged the body of knowledge, and our graduates have produced impressive results. Often very tangible ones, that can be seen not just on our

campus, but all over the world. But our greatest heritage must be our graduates: by today some 110.000 TU Delft alumni around the world are carrying on our engineering traditions and keeping up the good work.

All this forms the bedrock for your education here. It all starts with us laying the foundations of science, design and engineering, and of your knowledge and skills. We do that more rigorous than at secondary school. The piles, as it were, have to be driven in much deeper to support the edifice of your knowledge.

Otherwise, you will find that later on in your studies, and in your professional career, you run the risk of toppling over when you find yourself on shaky ground. Remember: you cannot build on quicksand.

Much of what we do here, is grounded in the work of the generations before us. You follow in the footsteps of a long tradition of Delft engineers. I'm thinking of people like

- Jacobus van 't Hoff, who won the first ever Nobel Prize for chemistry in 1901.
- Or Martinus Beijerinck, who laid the foundations of modern microbiology and discovered viruses, some 120 years ago.
- Or Elizabeth Korvezee, who graduated a century ago, and went on to become our first female professor, and our first professor of theoretical chemistry

And there are many more.

Your education will be built on the knowledge they created. That doesn't mean we are teaching you old hat stuff through out-of-date methods.

While the basics remain largely the same, we continually update our programmes and teaching in line with our standing as a high-tech institution, and with what's happening in the world around us. For example, a decade ago, we couldn't have foreseen how important things like cloud computing, virtual reality, big data and artificial intelligence would become in the life of an engineer. But now, these are skills that every TU Delft graduate should have at some level.

Under the surface, however, our assignment is unchanged. We are an institution of people dedicated to finding solutions. Hence, an important part of what you learn here is a mind-set, a way of looking at problems and how to solve them. We're not just theorising, but taking on actual challenges.

Our predecessors worked to keep our feet dry. Nowadays, we face the challenge that we need to keep our feet dry, but not too dry. Sometimes we need to block the upcoming water, sometimes, we need to take it in and store it. Too much or too little water are therefore the new challenges. And it is our task to take such a challenge on and come up with solutions that keep our world liveable.

And yes, that will require blood, sweat and tears every once in a while. But little is as satisfying as mastering something that is difficult. And that is what we do: picking up the difficult challenges, as they are more interesting, and they are also the way to contribute to a better society.

So while the classical engineering attitude remains important, we do focus on what is needed in the here and now. For example, while our mission has always been to make the world a better place, the notion of what is 'better' has changed. Our focus often lay on bigger, faster and more. Nowadays, we know this is no longer sustainable.

We must work on solutions that create a world that is fairer, we must find ways to deal with pollution and with shortages of raw materials, and we must help bring the energy transition about. And most importantly, we must find ways of dealing or coping with climate change.

And so sustainability has become a vital aspect of what we do and what we teach. Based on the knowledge and experience won by past generations of pioneers, and on the insights and breakthrough of our present pioneers, we are working on a sustainable future.

Past generations, however, are not only those pioneers of a bygone era. Generations of alumni out in the world form part of our TU Delft community. They form a vital bridge between our academic institution and the world of engineering practice, and broader society. Based on their input and feedback, we know where the practical challenges lie, and how we must develop our education to equip you to deal with those challenges. Conversely, we can supply them with the latest scientific insights.

We hope that once you graduate, you will become part of that network spanning generations. If you remain part of our community, we can continue to help each other.

In short: studying at TU Delft is no piece of cake. But it gives you a solid foundation for your future. What you learn here, you can pass on to the people you work with, or to your children, expanding and continuing our experience and network. That is why we say: TU Delft for Life.

[Closing]

I think that was a great portrayal of our TU Delft community.

But that also brings us to the end of our academic ceremony. I hope it will lay many foundations for us to continue to work and act upon.

For our new students, as an incentive to put their shoulder to the wheel and start as they mean to go on. But also, to feel welcome and supported and safe.

For our senior students and our colleagues, as an incentive to kick off the new academic year with vigour, creativity and passion.

But also, to feel needed and supported and safe.

And for everyone here today and our wider community, as an invitation to keep taking part in this wide and wonderful network. We couldn't do it without any of you.

So thank you for being here today.