

Strategic Priorities 2022-2024

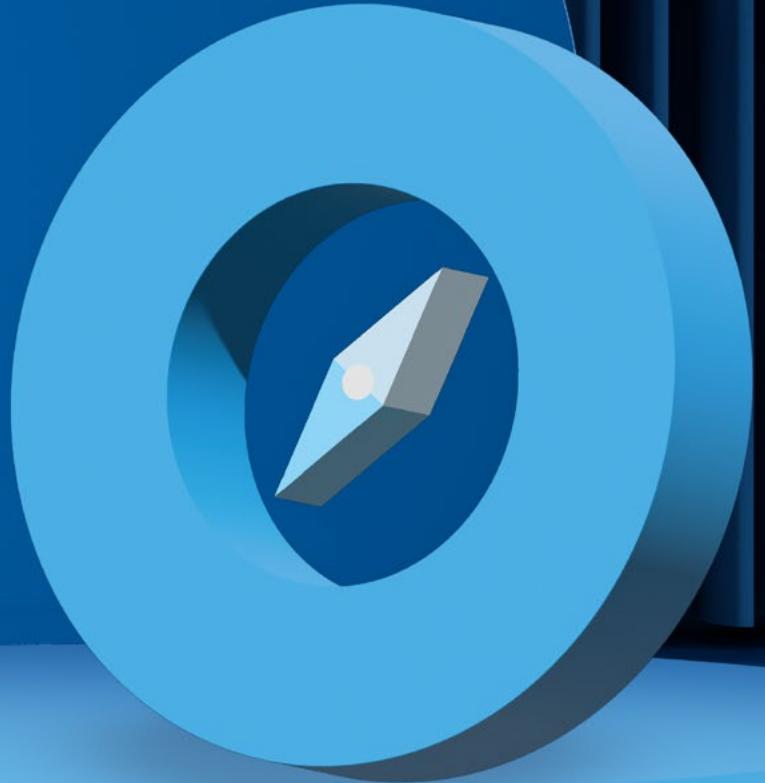


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Preface strategic priorities

The past two years have been a turbulent period, during which the TU Delft community and society as a whole have gone through several transitions. We still find ourselves in a dynamic environment. Especially now it is important to have a clear picture of what we stand for and what our ambitions are. That is why we are pleased to present the TU Delft Strategic Priorities 2022-2024, which we will jointly work on in the coming years. In doing so, we are building on the Strategic Framework 2018-2024, but in a way that incorporates the lessons learned from the past two years into our strategy.

For example, we have learned that we can work on location and online in many different ways; we will continue to shape this in the coming years through our hybrid working policy. Our education has also been through an accelerated transition. We will be able to build on our strong position as a leader in engineering education by integrating the latest insights in 'blended learning' into the curriculum, and by further

optimizing the support for our students and lecturers. Moreover, we will be paying special attention to the changing profile of the engineer.

Our students and scientists highly value societal impact and we translate this into our research and educational programs. Climate change, health and digitalization will remain important focus points for the coming years. The regional cooperation, strengthened in recent years with our colleagues at the medical centers and universities in Leiden and Rotterdam, will enable us to contribute even better to solutions for global challenges.

Of course, the well-being of our staff and students is an important issue and we will continue to pay attention to this, among others through the study climate program and the development of new leadership programs. Engaged students and staff are essential for a thriving TU Delft.

As TU Delft University of Technology, we have the ambition to make our campus carbon neutral by 2030. We must therefore critically reflect on our energy use, catering, mobility approach and campus ecology. The transition towards an carbon neutral, circular and climate-adaptive campus will entail large structural changes, but the Executive Board is convinced that through our joint efforts these sustainability goals can be achieved. Climate action on campus

will thus become increasingly visible and concrete in the coming years.

We are pleased to see that our TU Delft community is able to meet each other again on our lively campus. The resilience of our students, staff and partners, which has emerged time and again in the past two years, give us full confidence in our future, in which we may realize these great ambitions together.



Prof.dr.ir. Tim van der Hagen
Rector Magnificus TU Delft / President Executive Board

Drs. Marien van der Meer
Vice President Operations / Member Executive Board

Prof.dr. Rob F. Mudde
Vice-Rector Magnificus/vice-chair Executive Board



1 Introduction: why Strategic Priorities 2022-2024?

Since March 2020, we witnessed a landslide, changing the entire environment we were navigating in. The COVID-19 crisis has uprooted the way we live, the way we study, work and socialize. This landslide forced us to make new pathways. Build new bridges. Moreover, it has forced us to investigate our own perspective on the new landscape. How we feel about it, what we have learned, how our priorities might have changed and why.

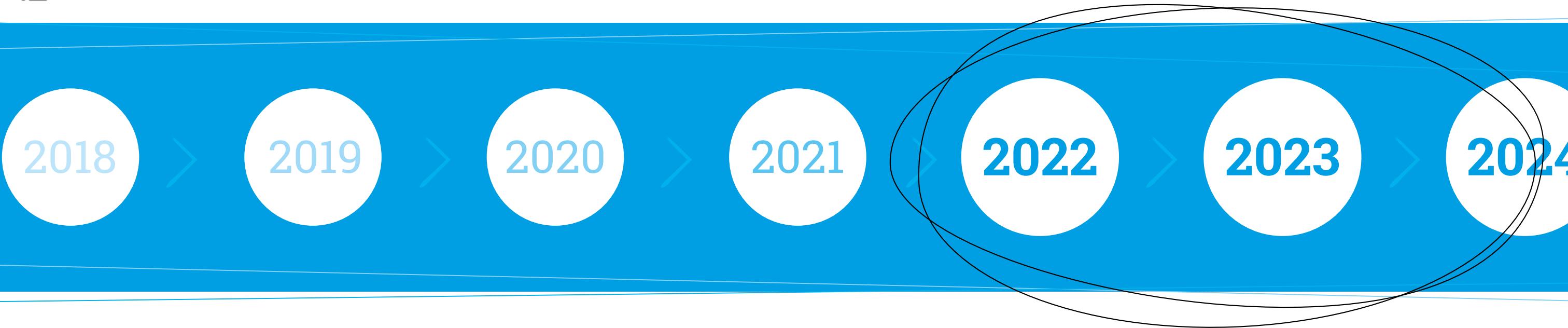
Since the start of the COVID-19 crisis, TU Delft has seen a remarkable quick shift towards new ways of working: a large part of our education has been transferred to online and students and staff were working largely from home. Furthermore, multiple cross-disciplinary taskforces have been set up to deal with specific operational and tactical aspects of keeping our university

running, dedicated student teams have been working on providing concrete solutions (such as OperationAir) for the COVID-19 crisis and platforms such as resilientsociety.nl have been set up to focus research projects on COVID-19 and its aftermath. This has highlighted the 'can do' mentality, flexibility and resilience of our university.

In such uncertain times, organisations are challenged to develop a strategic approach to deal with the medium and long-term implications and build up organisational

resilience. In order to navigate this new rapidly changing world we need a flexible strategic approach for achieving our strategic goals.





Strategic framework 2018-2024 in relation to the Strategic Priorities 2022-2024

The shared values, aims and working principles with which our community members can identify and align their energies and contributions have been expressed in the Strategic Framework 2018-2024. The purpose of the Strategic Framework is to serve as a high-level compass that guides decision-making bodies at all levels within our university. These overall goals of the TU Delft as expressed in the Strategic Framework have not changed, but due to the current volatile environment we are forced to critically reflect and prioritize our strategic responses for the coming two years. Therefore, in these Strategic Priorities 2022-2024 we present the focus areas and more specific targets and plans for the TU Delft for the coming two years. It is in that sense both an update of the current Strategic Framework and a predecessor of the upcoming new strategic plan (2024-2030).



Emerging strategies

In the past years several developments have led to emerging strategies for our university. These emerging strategies have become very prominent in our operations but were not explicitly included in the Strategic Framework 2018-2024. They will therefore be addressed more in detail in the Strategic Priorities 2022-2024.

Most notable the COVID-19 crisis has led to a higher prioritization of topics such as hybrid working, blended learning, student/staff wellbeing and campus redesign (including sustainability). The COVID-19 crisis has also accelerated polarisation in society. This has ambiguous consequences for trust in science: on the one hand, overall public trust in science has increased; on the other hand, specific groups show a growing mistrust towards science. The increased belief in conspiracy theories and fake news have implications for universities, including threats to our academics. Restoring trust in science for some parts of society and living up to high levels of trust in science in other parts, are therefore an important focal point for TU Delft. This also requires protecting and

promoting academic values, as well as critical (self-)reflection on our academic culture.

Climate change will continue to further disrupt societies across the world, calling for increased global efforts to develop climate change mitigation and adaptation solutions. Against this background it is anticipated that our scientists will be asked more frequently to support governments and policymakers in making informed decisions to combat climate change. Not only did we increase our research capacity in this regard, but we are also in the process of implementing concrete measures to make our campus CO2 neutral before 2030.

In the past years we have also seen that urgent and complex societal challenges called for closer collaborations across boundaries between institutes and disciplines. Among others TU Delft has joined forces with Erasmus MC and Erasmus University Rotterdam to work on the Convergence of Health and Technology, AI, data & digitalization (also together with Leiden University) and Resilient Delta.

In addition, several large-scale research programmes have been developed, such as AiTech and Climate Action, to stimulate the build-up of research capacity in these areas, the development of innovative new educational programmes, and closer public engagement.

In parallel, in a context of growing geopolitical tensions, we recognize the

urgency to develop new policies for knowledge security and explore the ethical dilemmas and moral boundaries relevant to our academic practices and partnerships. In addition, because of recent hacks of universities cybersecurity has been put much higher on the agendas of Higher Education organisations.

Looking forward

We will continue to operate in a highly volatile environment, and it will remain difficult to predict COVID-19 developments, governmental responses, the impact of climate change, geopolitical developments and economic impacts. Rapid changes in the number of students enrolling at our university, possibilities for recruiting world class academic staff, the willingness of private parties to finance joint research and government funding might change significantly within unprecedented timeframes.

The Strategic Priorities 2022-2024 aim to provide concrete goals and guidelines for the coming two years, taking into account that we will still be operating in a highly volatile and difficult to predict environment. The landscape has changed and we ourselves might have changed, but the overall mission of our university has not changed one bit: Impact for a better society.



2 TU Delft vision, mission and values

Vision

Delft University of Technology contributes to **solving global challenges** by **educating new generations** of **socially** responsible engineers and **expanding the frontiers of the engineering sciences**.

Mission

- We perform **world-class research** by combining science, **engineering and design** in a **socially responsible** manner. Thus, we advance and **share the benefits of technology**.
- We **develop and enhance** the expertise of **tomorrow's engineering** leaders and educate professional, high-level and responsible engineers **throughout their careers**.
- We help to develop and deliver **technology-driven, innovative solutions to societal problems** through **collaborations** with leading **national and international partners** whilst being firmly rooted in Delft.
- We continuously improve our **collective effectiveness**, performance and organisational resilience through the principles and practice of **professionalism, collaboration and openness**.

Values

The acronym "DIRECT" represents the core values that we, as the TU Delft community, seek to uphold in our daily activities – as we present ourselves to the world, and in our relationships with each other. "DIRECT" stands for **Diversity, Integrity, Respect, Engagement, Courage and Trust**. Of these values, that

form the basis of the TU Delft Code of Conduct, integrity is key. It is our personal integrity that guides each of us when we interpret and act on these values, and it is to the integrity of the institution and community as a whole that our individual actions contribute to.



DIRECT

Integrity

Integrity means being independent, responsible, honest, transparent and sincere for its own sake. Persons of integrity hold themselves to high moral and ethical standards. In order to have integrity, we need to willingly engage in self-reflective deliberation about what those standards ought to be, and how we can work together to uphold them. We all have the responsibility to improve ourselves and to act in ways that empower the community as a whole to act with integrity. Integrity is not a quality that can be taken for granted; it requires a continuous effort to maintain and improve.

Diversity

At TU Delft we embrace diversity and aim to be as inclusive as possible. We follow The Universal Declaration of Human Rights, believing that “All human beings are born free and equal in dignity and rights.” Hence, the differences between humans ought not diminish our respect for each and every individual as equally worthy of our consideration. This concerns differences in socio-economic, cultural or religious background, nationality, gender, sexual orientation, age, physical appearance as well as roles and positions. Put positively, the joining of diverse perspectives is an aspect we want to promote with our activities. These differences add value - not only to our daily lives but also to the work we do together. We should therefore protect and embrace the diversity within our community.

Respect

Respecting each other, and thus the diversity of our community, implies that people are never treated merely as means towards the attainment of personal or organisational goals, and that we respect each other's freedom and ambition to excel. It also implies that members of our community will not discriminate, demean, bully, humiliate, harass or manipulate others. We might have differing ideas of what counts as respectful behaviour. Therefore, respecting each other also entails being honest, transparent, and willing to engage each other with an open mind, in discussions about our ideas, actions and responsibilities.



Engagement

We strive to have impact for a better society, both on a local and global scale. Being responsible means that we consider the implications of our actions, also concerning the collaborations we engage in, the partnerships we form, the results of our research, or the impact of the technologies we develop. We embed the social responsibility of TU Delft into our educational programmes, research, designs, projects, and in activities that support these efforts. TU Delft is an open academic community: we strive to be an institution in which employees, students and guests can communicate with each other openly, and we aim to reflect the ideals of open science as much as possible. This openness is part of the effort to ensure that the processes of education, research and innovation, as well as administrative and decision-making processes, are verifiable at all levels of the university. The responsibility for engaging in and monitoring these processes is shared amongst us, members of the TU Delft community. Our engagement is also expressed in the ways in which we relate to each other within the TU Delft community: we inspire each other and are prepared to offer and receive constructive feedback.

Courage

We believe it is important to be courageous in exploring the frontiers of scientific and technological knowledge and design. We make our knowledge accessible to other experts as well as to society and are open to learning from each other. Courage is also needed when it comes to integrity: it takes courage to speak out. All of us work together to create and maintain a safe environment for discussing and acting on difficult questions, in order to enact our core values and principles. This includes having the courage to face uncomfortable situations and deal with them responsibly, to recognize our own limitations, and to ask for help when needed.

DIRECT

Trust

Public trust in science and mutual trust amongst the members of the TU Delft community are key. Scientific knowledge is a public good and it is our responsibility to act in such a manner that we, and the outcomes of our work and studies, are worthy of that trust. We are committed to transparency — by being, as much as is possible and fitting, open about what we do, with whom, and why. Thereby we show ourselves to be trustworthy to those inside and outside of TU Delft. To enable trust in each other, we respect each other's privacy and protect confidential information. We have systems in place to guide us in how to protect data privacy, and we respect each other's freedom from intrusion. We take responsibility for our actions and avoid conflicts of interest and the semblance thereof. Those of us in managerial positions further act upon the responsibility to create a safe environment in which people trust each other.



3 TU Delft – In times of COVID-19

TU Delft has always been a campus university and we highly value the exchanges and interactions in our classrooms, lecture halls, library, cafeterias, offices, and parks. We see this as vital for the social cohesion of our organisation. As an organisation we encompass many different communities, consisting of people forming their own interactions, group identification and sense of belonging. The campus brings us together and allows for frequent and intensive contact between different members and communities. In the past two years, while doing almost everything from home, we have missed this in our work and education.

However, we also discovered that much more is possible 'online' than previously

thought. We have learned that it is not always necessary to be in the same location to work together efficiently. How flexible we can be as an organisation, how quickly we can shift to new ways of working and studying. That we do not have to travel that much to still have meaningful (international) exchanges. That we can spend more time at home with loved ones. We have discovered the freedom of determining our own work and study schedule. We also learned that there is a flip side to this freedom. Determining our work-life balance on a daily basis can be exhausting and sometimes we can completely lose the balance and become engulfed by endless online meetings, emails and texts.

On March 13th 2020 we abruptly shifted from doing almost everything on campus to doing almost everything from home. This transition was achieved through an enormous effort by our staff and students. Some great initiatives have come out of this time, such as the OperationAir and the 5 to 12 student movement supporting local communities. At the same time, this period highlighted some of the existing weaknesses within our organisation, such as the huge pressure on teaching staff and the sometimes isolated position of (international) students.

Going forward, we are facing a new transition period. When restrictions within

the Netherlands and the world are lifted, we will be able to work and study in large groups once more. So, what will we return to? How can we become that vibrant social community on campus again? How have the past years changed us? What are the lessons learned we want to take with us into a new future?

The answers to the above questions will differ for each person. We can talk about the overall 'lessons learned', but these will be nuanced for each person. We know how it was before the COVID-19 crisis and how it was during, but we will need to discover the post-pandemic society together step by step in the coming year(s).



4 Dynamic context – selection of external drivers

The TU Delft operates in a complex and dynamic playing field with many internal and external stakeholders that have explicit and implicit expectations of us. We have identified several external drivers which currently have a high impact on our university. These factors determine to a large extent the playing field and the scope within which the TU Delft can develop its activities.

COVID-19 policies

The COVID-19 crisis has had a profound effect on our society and economy. Its impact on all the activities of TU Delft as well as on the TU Delft community has been immense, becoming the main trigger in re-evaluating our strategy for 2022-2024. Whether, and for how long, COVID-19 policies will remain an important parameter in our strategy depends on many unpredictable factors, from the possible emergence of new variants and the quality and availability of vaccines to the choices of governments and behaviour of the population.



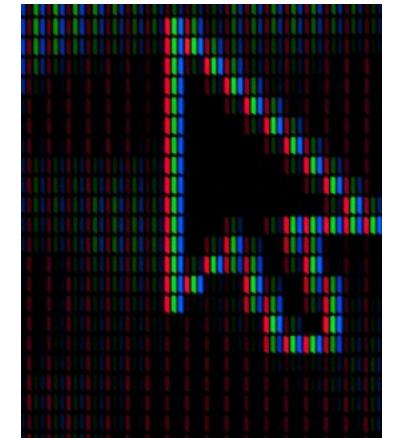
Climate change and sustainability

Another developing crisis, climate change, is even turning into an existential threat on many fronts, transforming societies around the world. It also creates a moral obligation and asks for a leading role of a technical university such as ours. Not only should we contribute to the world's efforts through our scientific research and educating tomorrow's engineers and citizens, we should also critically reflect on our own impact on climate change. Moreover, many Dutch universities are clearly aligning their ambitions with the Sustainable Development Goals (SDGs) of the United Nation (UN), as sustainability is becoming a common thread in education, research, knowledge transfer and operations of Higher Education institutions.



New developments in technology, including digitalization

Digitalization and automation are fundamentally transforming the way we work and study. There has been a rapid speed of new technological developments in the area of work and education, and technology continues to further permeate all areas of society. We will have to reassess what this means for our research, our educational programmes and our day-to-day operations, including how we will deal with the moral and ethical dilemmas that come with these developments.





Labour market

Changes in ways of working, as well as education and research are intimately connected to the labour market. As a university, TU Delft is positioned in both supply and demand of workers. On the supply side, the engineers of the future educated in Delft are highly valued by the (international) labour market. This makes TU Delft an attractive university for (prospective) students with programs that stay up to date with labour market developments. On the other hand, TU Delft is continuously looking for high quality academic and support staff to achieve its missions. The global competition for academic talent and the tight labour market in the Netherlands create challenges in attracting talent. General trends on the labour market include the movement towards lifelong learning and a focus on personal and professional development.



Dutch government choices for higher education, including funding and investment

Given the current political situation in the Netherlands, choices by a new government may be anticipated with respect to the funding of research and education. Public decisions about higher education will have a significant impact on, among others, funding per student, budget for free research and mission-driven funding programs, and

as a result on the balance between education and research. Other important factors may be the possible legislation on the regulation of student influx, the institutional accreditation, and the quality agreements.

Moreover, the Dutch government continues to promote innovation and ecosystem development through legislation and investments. For the coming years, the focus of the mission driven innovation policy includes the themes of climate and energy, digitalisation & key technologies, and the circular economy, and it will put start- and scale-ups at the centre stage of these developments.

Value-driven society

Research shows that Gen Z, compared to previous generations, is more motivated to have a positive impact by helping to create and sustain a liveable world. Their sense of urgency and willingness to contribute may be indicative of a broader social trend. Also, in the midst of polarisation and growing tensions in society, there seems to be a growing awareness of principles such as integrity, diversity, inclusivity and equality, which are shaping the way we (want to) treat each other. Universities are expected to play a leading role, not only in their primary missions by including such values in engineering, design and science, but also in their daily functioning, which is reflected in the further development of our integrity policies, as well as in the reassessment of the Recognition & Reward policies for scientific staff.





Student-centric education

The student population is growing and becoming more diverse. Lifestyles, educational needs and expectations are changing. University students are more outspoken, they have clear demands and wishes regarding their educational paths, which should also fit the labour market. At the same time student well-being is high on the agenda due to the COVID-19 crisis as well as and the growing importance of new societal values.



Regional Inter-institutional collaboration

Developing and organizing strategic inter-university partnerships, networks and alliances at institutional levels is considered a necessary aspect of the overall strategies of higher education institutions. Inter-institutional cooperation is regarded as one of the hallmarks of a vital university ecosystem and takes very different organisational forms. In Europe, this development is stimulated both by the rules set by the European Union to obtain research funding and by the European Union's perspective on innovative economic regional hotspots. In the Netherlands, inter-institutional cooperation between universities – in addition to the

EU- rules – is stimulated by the government's efforts to profile and differentiate the higher education landscape. A significant number of such strategic alliances have emerged in the Netherlands in recent years; sometimes building on already existing collaborations, sometimes as newly forged and promising collaborations.

Knowledge security

(International) collaborations with trusted and diverse partners, both public and private, become increasingly important in tackling (urgent) complex societal issues. This is relevant in light of our ambition to have impact via more inter- and transdisciplinary research, but it also poses new types of challenges. Collaborations with partners in countries where human rights, including academic freedom, are not respected, increasingly raise ethical concerns. Also, this may pose challenges to our ambition to practice open science, as we need to better understand the possibilities for and risks of openness, thereby clearly rationalizing what we do open, to which degree, and what not. Moreover, state actors that do not always respect democratic principles, fuelled by geopolitical tensions, actively strive to acquire sensitive technologies and innovations. These developments require careful attention, including the design of new principles for and policies on knowledge security and collaboration with third parties, as well as infrastructure and tools that help researchers, teachers and students to make robust decisions, and help the university to ensure organisational accountability.





5 Strategic priorities 2022-2024



These Strategic Priorities 2022-2024 entail the focus areas for the TU Delft for the coming two years.

These Strategic Priorities 2022-2024 entail the focus areas for the TU Delft for the coming two years. These areas have mainly been defined based on the analysis of external drivers¹ and the advices of the 'Strategic Response Teams'². The Strategic Framework 2018-2024 included 120 goals, both long term and short term. Some of the activities linked to these goals have been 'embedded' in our current day-to-day operations, while other require additional effort in the coming two years and therefore have been included again in these Strategic Priorities. Thus, in the Strategic Priorities, the most pressing issues and goals for the coming two years have been highlighted, but this naturally does not cover all activities taking place in our university, nor have the other goals become less relevant.

1) In the TU Delft report "Towards an Analysis of external drivers relevant for TU Delft" (June-2021) main external drivers for the organisation were identified. These drivers were extensively discussed with internal and external stakeholders during several strategic conferences.

2) In December 2020 the Strategic Response teams (SRT's) were set up to advise the Executive Board on what the world can look like after COVID-19 and what this means for our education and research and the impact we want to make. The teams consisted of internal experts (scientists, support staff and students) and involved both internal and external stakeholders when drafting their advices. In June 2021 the SRT's presented their short term and long-term advices to the Executive Board. Mainly the long-term advices have been incorporated in the Strategic Priorities.



Students & Education

- Leadership in engineering education
- Contemporary vision on teaching and learning
- Reducing the workload of our teaching staff
- The growing student population
- Student journey improvements
- 'Delft engineer' approach
- Lifelong Learning strategy
- Open education

Research & Innovation

- Research excellence
- Strategic choices of scientific themes (amongst others Climate Action, Energy transition, Health & Care, Digital Society and Urbanization & Mobility) and living labs
- Next-level innovation ecosystem
- Professionalize our research support
- Open science
- Global engagement and knowledge security

People & Community

- Care Ambition
- Hybrid working policy
- Social cohesion
- Career development of our staff
- Leadership programmes
- Diversity and inclusion programme
- Integrity programme

Campus & Services

- New Campus Vision
- Campus Strategy
- Sustainability plan to become CO2 neutral, circular and climate adaptive in 2030
- Next-level campus ecosystem
- Digital strategy
- User-centric services
- Risk management
- Information security



Students & Education



Context

Students are TU Delft's biggest impact on society. The big transitions society is facing, with regards to climate change, health and digitalization, require highly skilled engineers and technology leaders. It is our job to enable our future generations of engineers to make the world a safer, more sustainable and generally better place.

The COVID-19 crisis has had a huge impact on our students lives and welfare. We had to completely change the way we teach. Students were cut off from their social circles and (informal) interactions between teachers and students were greatly missed. This was not only very hard on both students and teachers, but also detrimental for the social cohesion of our organisation. On the other hand, we witnessed the resilience and flexibility of our students and educators on a daily basis. Bottom-up initiatives such as 5 to 12 student movement showed the innovativeness and engagement of our student community.

In the coming two years we aim to rebuild our vibrant, diverse and inclusive student

community in class and on campus, while also integrating the 'lessons learned' from the COVID-19. With the changing landscape there are various aspects to keep in mind in order to continually provide the best quality of education. Important themes include understanding where online teaching and on campus teaching is appropriate, having hybrid education that is intentional and with purpose, serving large groups of students while ensuring that personal attention is not lost and providing the best possible support for lecturers regarding the use of digital resources. The overall goal is to ensure the quality of our engineering education for a rising number of students and reduce the workload of our teachers.

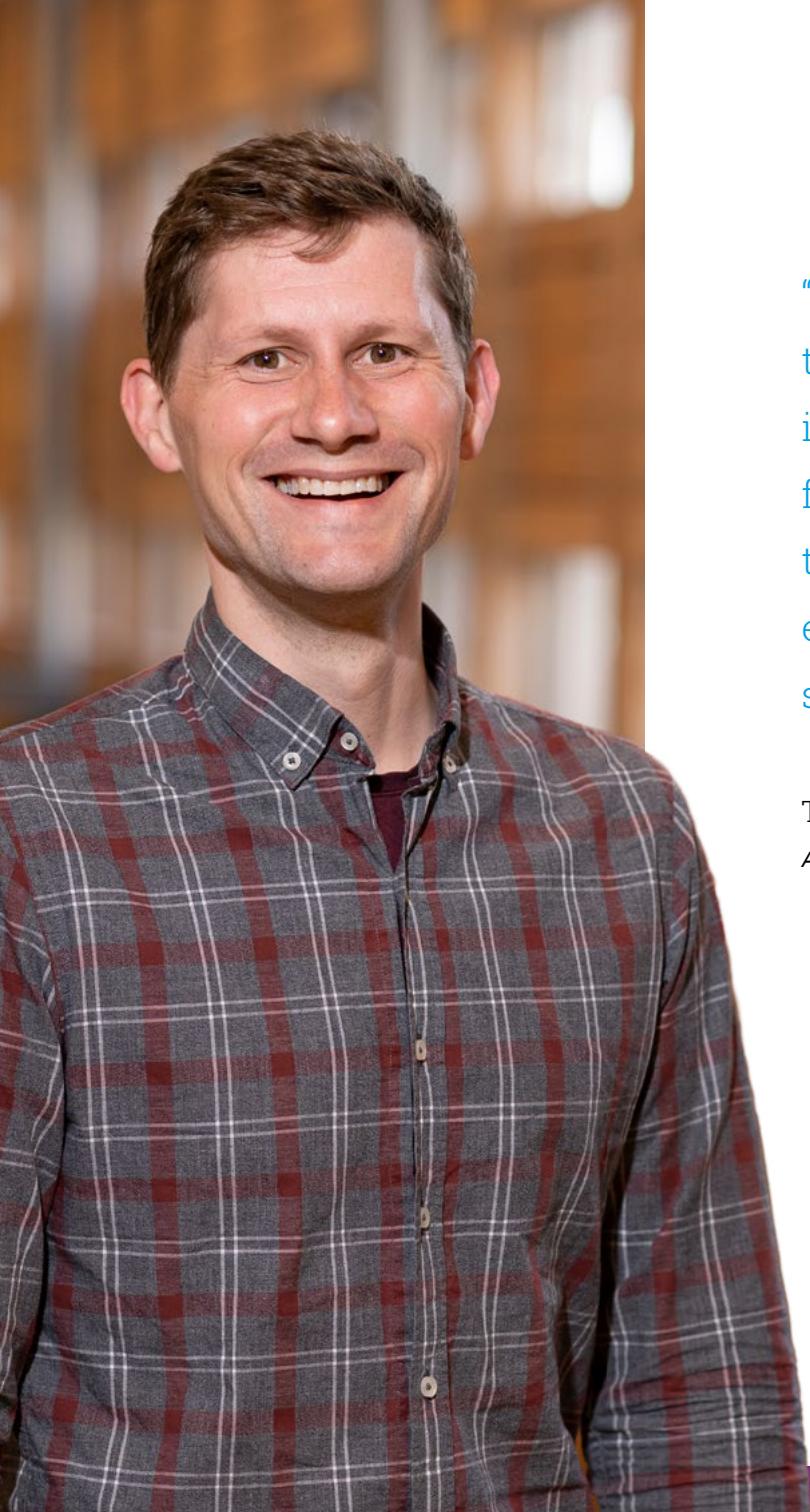
Through smart investments in educational support, we will further operationalize our 'vision on education' (2018). In addition, we will critically reflect on the 'studyability' of our current programmes and make adjustments were necessary.

The demand for Delft engineers on the labour market remains strong and our university continues to attract both national and international talent. One of the focus areas in the coming two years will be building up our teaching capacity. With the extra funding awarded to the TU Delft by the ministry of Education we will attract additional staff with teaching duties and invest further in educational support. Moreover, we will continue to focus educational content more strongly on large societal challenges, most notable in health

and technology, climate change and AI & digitalization and promote more group work and personal development opportunities for students.

In addition, we will further advance our lifelong learning portfolio and deliver continuing education for professionals to upskill themselves in areas of technical and engineering expertise of great relevance to the environment and society. Finally, the developments towards open education will be institutionalized in order to make Open Education the default approach for teaching in the coming years.

Above all, we are excited to welcome our students fully back on campus again.



“2020-2022 has taught us the value of both online and in-person education. Moving forward I want to incorporate the best of both of these educational worlds for our students.”

Thomas Burdyny
Assistant Professor / Teacher of the Year 2022

“In the Central Student Council I was able to underline the importance of representation and inclusion of people from diverse backgrounds in every layer of the university. The true skills of a Delft Engineer lie in not only ensuring everyone is contributing to tackling global challenges, but also in embracing a diverse mindset.”

Saraf Nawar
*Chair- Lijst Bèta
Secretary TU Delft Central Student Council*





Students & Education

For 2024



We continue to expand our position of leader in **engineering education**.



Lecturers play a crucial role in our education, and it is our ambition to hone a culture and setting in which they are optimally supported and guided. Therefore, a contemporary vision on **teaching and learning will be developed**, which will include blended and hybrid education.



We aim to reduce the workload of lecturers **through dedicated investments in additional teaching staff and support**, but also by **exploring new possible strategies** aimed at reducing the workload, such as digitalization.



We will develop **clear guidelines on how to manage the growing student population**, ensuring that the student-staff ratio is acceptable, and the quality of education is guaranteed. Among others by assessing our educational programmes and investigating the possibilities for redesigning programmes (including assessment) to allow for both a large-scale and small-scale approach and effective organisation of education and student support. We will continue to discuss the optimal 'size' of our university with our stakeholders.



We will improve our insights into **the student journey** (amongst others in light of student success, mutual expectations and student wellbeing).



The **'Delft engineer' approach** will be further developed, and our programmes will be updated to allow for more interdisciplinary group work, professional development (Master 2.0) and the integration of new content on large societal challenges (Climate Action, Health & Care, Digital Society, Energy Transition and Urbanization & Mobility), while maintaining the strong foundation of state-of-the-art disciplinary knowledge and expertise.



We will develop a **Lifelong Learning strategy** focussed on societal challenges in collaboration with faculties and professional learners (including our alumni and their employers).



We will implement the new policy on Open Educational Resources, which will be a starting point to make **Open Education the default approach for teaching** at TU Delft.

Research & Innovation





Context

Despite the challenging circumstances as a result of the COVID-19 crisis and related lockdowns throughout the world, we were able to continue most of our research activities and strengthen our international reputation as a world class technological university with impact for a better society.

Large societal challenges have become even more prevalent in our research activities. This is in line with the overall trend where research today has become more of a designed and purposeful process, focusing much more on specific 'real world' problems and societal challenges. A strong basis of fundamental scientific research remains nonetheless essential. Upcoming structural choices in government funding of research will naturally impact the further development of our research portfolio.

In the past three years several large multidisciplinary research programmes have been launched: we have initiated new collaborations with Erasmus MC and Erasmus University Rotterdam on Health and Technology, AI, data and digitalization and on Resilient Delta. This led among

others to the recently established Pandemic and Disaster Preparedness Centre in Rotterdam. On AI we have set up 24 new labs and innovative educational programmes, also in close collaboration with Leiden University. In the Climate Action programme our research on climate science, mitigation, adaptation and governance will be strengthened. QuTech is our mission-driven research institute for quantum computing and quantum internet. Recently the Quantum Delta NL program received significant investments from the Dutch 'Growth Fund'.

The aim of the program is to position the Netherlands as a new Silicon Valley for quantum technology for Europe over the next seven years.

In the coming two years we will further build on these programmes. We anticipate that programmes will lead to increased external funding and much closer (regional) collaboration with businesses and (local) governments. Strengthening our public-private partnerships will be crucial in this respect and our campus will play pivotal role in bringing innovators and pioneers together to develop innovations with a positive impact on society. As we see a growing amount of financing opportunities outside of traditional instruments (such as the Growth Fund), we intent to develop new approaches to respond to this.

Outreach and public engagement are core elements of these large-scale research programmes. We therefore aim to work closely with the general public, global leaders and policy makers in developing concrete solutions and more actively engage in the public debate. Against that background we also intend to intensify our presence in The Hague.

TU Delft has a leading position in Open Science. Open access ensures that science developed with public means is accessible without hitting a paywall or

other restrictions. In addition, it allows staff members at universities that cannot afford expensive subscriptions to access information so that the academic becomes more of a level playing field. Fair data is essential to build trust in the outcomes and conclusions of research projects. It allows verification of results, while other researchers can consider reusing these datasets in their own studies.

As the production of knowledge goes hand in hand with the sharing of knowledge, we will continue our efforts in building trusted partnerships on a global level. At the same time, we are very aware of the growing geopolitical tensions and found there is a need for new policies on knowledge security, especially in areas such as AI.



“As Delft Young Academy we foster dialogue and collaboration between young academics from different disciplines and faculties.”

Dr. Delphine De Tavernier
Tenure-Track Assistant Professor and member of Delft Young Academy

Dr. Angelo Accardo
Tenure-Track Assistant Professor and member of Delft Young Academy

“We were able to grow our sustainable start-up at the TU Delft campus thanks to the many connections we could make here with researchers, students and other businesses.”

Mark de Kruijff
*Business & Technology Developer/
Strategy Advisor of Respyre*





Research & Innovation

For 2024



We consolidate **our strong international academic position and reputation** based on our research excellence and state of the art infrastructure. We will also focus more strongly on making our research and innovations more inclusive.



We envision that **our strategic choices of scientific themes** (among others Climate Action, Energy transition, Health & Care, Digital Society and Urbanization & Mobility) and living labs lead to increased research capacities, additional 2/3rd stream revenues (among others the Dutch Growth Fund and EU Green Deal), closer collaboration in the region and innovative new educational programmes.



We will further enhance our public private partnerships and strengthen **the next-level innovation ecosystem** on our campus.



We aim to **professionalize our research support**, in order to proactively respond to financing opportunities, align relevant research services and support our academics throughout the lifecycle of their research projects.



We will expand the work on **open science** with open hardware and citizen science and pay systematic attention to ethics and integrity in Open Science, thereby exploring the limits to 'open' ("as open as possible, as closed as necessary"), and the interface with knowledge security and openness in (international) partnerships.



We will further operationalize our **Global Engagement Framework** and formulate a **knowledge security** vision with clear procedures for staff and students.



People & Community





Context

Our people are central to our success and we strive for a culture at TU Delft where our staff and students, but also our business partners, fieldlabs and start-ups, can flourish.

The COVID-19 crisis has deeply impacted the social cohesion of our organisation, as we have been forced to work and study in completely different ways, far apart from each other in the digital domain. This has been very challenging and is not something we want to return to and/or continue. While we do not envision a digital university, in the discussions about the post-pandemic university there was a general consensus that the positive aspects of our 'time online' should be integrated into our future ways of working and studying. In the coming years we will therefore invest further in hybrid working and blended/hybrid learning strategies. Moreover, to boost the social cohesion of our organisation we will regularly organize community projects and interactive events, to bring communities together again on campus.

If the worldwide pandemic has taught us anything, it is how important 'health

and wellbeing' is to us. Poor health and/or wellbeing have a devastating effect on individuals and the university's communities. In the past year, loneliness and depressions among both staff and students became a grave concern and the university has had to determine what our role is in supporting our community in this area. The university should be a place that promotes health and wellbeing and in the coming two years we will further investigate how to offer concrete support in this area for our community.

Our international collaboration was impacted by the COVID-19 crisis, with travelling restrictions for over a year. This especially affected more junior researchers, who were unable to build up their network during conferences. Recruitment of talented international staff has also become more challenging due to the travel restrictions.

We will therefore be taking steps to make our recruitment practices more flexible and to support junior researchers better in building up their network and developing their career.

Diversity unlocks innovation, drives growth and boosts creativity. We therefore promote a balanced and well-integrated population of students and staff, including gender and cultural background. Inclusion improves staff and students positions and participation through enhanced opportunities, access to resources, an increased visibility and voice, and respect for both individual rights and group rights. Inclusion also requires from us that we are transparent in what we expect from each other, as these expectations may be unclear to, for instance, students who are less familiar with the (Dutch) academic culture, such as international and/or first-generation students. The TU Delft Diversity & Inclusion Office will work to further promote a respectful, accessible and inclusive community for all staff, students and guests.

TU Delft strives to be both a leading university and a great place to work. At the heart of this lie our core values (DIRECT),

which are embedded across the TU Delft community and manifest in how we work, study and socialise together. Recent developments have raised, and will continue to raise, new and often complex ethical dilemmas for TU Delft students and staff. The Integrity Office, and TU Delft's integrity infrastructure, will enable the TU Delft community to deal with these dilemmas. Such dilemmas range from the implications of the COVID-19 pandemic for how we work and study, to the increasing attention for social safety, the need for interdisciplinarity, how we reward and recognize academics, and achieving the right balance between international collaboration, Open Science and knowledge security.

We will also strive to implement leadership programmes in line with this strategy and invest in the development of leadership skills required to successfully manage transitions. We will embed the leadership profile in everything we do, leadership programmes will focus among others on: recognizing and rewarding talent, creating a socially safe environment and talking about well-being.



“Social cohesion is an indispensable, but also rather intangible condition for creating a successful, creative and inclusive community of staff and students that together shape our TU Delft campus. All our work and activities, whether chance meetings at the coffee machine or a large scale conference, should contribute to creating this cohesion.”

Prof.ir. Dick van Gameren
*Dean of the Faculty of Architecture
and the Built Environment*

“The willingness of TU Delft students to contribute to society is enormous. It is important to support and connect enthusiastic students with the right stakeholders to bring innovative ideas to life.”

Annelotte Andeweg
*Student official at the
municipality of Delft*

Thijs de Jongh
Co-founder of the Social Hub





People & Community

For 2024



We will identify how we, as a university, can further support the wellbeing of our students and staff, by means of defining the **'Care Ambition'** of the TU Delft.



We will transition to hybrid working, by implementing the **hybrid working policy** and by focusing on finding the right balance between working on campus and working from home. As hybrid working is new to all of us, surveys will be performed regularly. The transition to hybrid working will be a learning process, and may lead to a revision of the policy for hybrid working.



We will focus on **boosting the social cohesion** within our university. The sense of community will be further strengthened by **stimulating joint activities and knowledge exchange across the various faculties and service departments**. Furthermore, we will set up multiple community projects and organise **regular interactive events and lectures** for the broader community on campus.



We will further improve the possibilities for **career development of our staff**, by continuing our efforts in recognizing and rewarding talent, enhancing our preboarding and onboarding processes for international talents and adapting our recruitment procedures to take into account current uncertainties. We will review our postdoc and PhD policies to address uncertainty in career development, to improve personal development of junior researchers and to improve career and funding opportunities for the large population of new tenure trackers attracted within TU Delft strategic programs.



Additional leadership programmes on different levels of the organisation will be offered to support the successful management of hybrid teams and the creation and/or safeguarding of a socially safe environment, in which wellbeing plays an important role.



A dedicated diversity and inclusion programme will be implemented by the Diversity & Inclusion Office, among others with a focus on gender equality, gendered research and innovation (GRI)/ inclusive research and innovation, study and work success and representation, recruitment practices vis-à-vis diversity and inclusion, religion and spirituality and support services for people with a disability.



We will further strengthen and broaden the **integrity programme**, including academic, social and organisational integrity, with the expertise of the Integrity Office, thereby building on the Vision on Integrity 2018-2024 and the TU Delft Code of Conduct.



Campus & Services





Context

Daily, about 27.000 people travel across our campus: students, scientists, visitors, and employees of the university and the companies on campus. Stretching over 161 hectares, the campus is larger than downtown Delft, and one of the largest university campuses in the world. The goal is that our campus is a vibrant and attractive place where students, employees, businesses, and visitors can meet, an ecosystem that enhances cooperation between the university and our surroundings.

We anticipate that the way we interact, learn and work will continue to change in the coming years and our campus infrastructure should support these developments. The challenge of managing our campus, however, is to address all the needs of our community within the means available for investment. The university is building new education spaces for the increasing student population (e.g. Echo) and renovating or building new faculty buildings and research facilities (e.g. EEMCS, Applied Sciences). Taking into account to what extent the specific functions of our buildings match the needs of our community. Also, the university is investing in infrastructures for mobility and

in a sustainable campus. The interplay of increasing needs, scarcity and rising prices versus the financial frame leads to a continuous tension between ambitions and affordability. The objective of the Campus Strategy is to give insight into this context and to offer direction for prioritization, allowing us to make future-proof investments.

Our campus plays a pivotal role in bringing together like-minded parties to make meaningful connections and collaborate to accelerate innovation. Already, more than 250 national and international companies, ranging from promising start-ups to renowned tech companies, are located at

TU Delft Campus. In the coming two years this campus ecosystem will be further developed and supported, in line with research and innovation goals.

As the TU Delft community continues to grow, so do the city of Delft and our external partners. This puts pressure on the maximum capacity of the city and its citizens. Furthermore, this growth leads to an increasing demand for functions on campus, such as more student housing, more space for businesses and better infrastructure. Good coordination and cooperation with the municipality of Delft, student housing organisations and external partners is needed to find optimal solutions.

We have the goal to become CO2 neutral in 2030 and this will entail large structural changes in our energy use, catering, mobility approach, waste management, water management and campus ecology. We can also look at ways to make better use of the existing spaces on campus by sharing them, especially when we continue to work, study, meet and learn partially from home and spaces on campus may potentially be left unused for parts of the week.

An excellent university requires excellent support services that are efficient and effective. A university wide digital strategy will be developed in the coming years that will address the effects of digitalization on the core and operational process of the university. In order to make the services even more user-friendly, we need to consider processes as chains that sometimes exceed the boundaries between service departments. Implementation requires enhanced chain management and chain management policies, with the various services being well-matched at the central and faculty level, and with a solid and modern ICT base. We will also further develop a business intelligence capability that improves our understanding of TU Delft and the context in which we operate, and that facilitates decision-making based upon transparent and trusted information.

We are committed to establishing a healthy, safe and secure university. We develop an overall TU Delft risk and compliancy policy aligned with our vision, mission and strategic goals. On top of that, we will further strengthen the cybersecurity capability and continuously advocate information security as a shared, university wide, business responsibility.



“I am working with people from all over the campus and it is amazing to see their intrinsic motivation to make our campus carbon neutral, circular and climate adaptive. Together, projects are being set up all around the campus, ranging from new mobility projects to students planting trees for more biodiversity.”

Deirdre van Gameren
Sustainability researcher



“You are at home
where the campus flourishes.”

Maurice Sijthoff

Director of subsoil and public lighting

Ron Heijmenberg

Manager Sport

Cas Verhoeven

Head of Public Space Management





Campus & Services

For 2024



We will develop a new **Campus Vision**, that builds on past achievements and integrates all the needs and interests from different perspectives and provides an integrated base for making strategic decisions about the use of the campus.



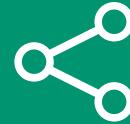
We will periodically update the **Campus Strategy**, detailing renovation and new construction to accommodate the growth and the goals of the university with regards to new ways of studying and working, social cohesion, the sustainability plan and the innovation ecosystem development, within the available means.



We will commence the **implementation of the sustainability plan** to become CO2 neutral, circular and climate adaptive in 2030, among others through the pilot projects on energy use in the buildings, food, mobility (especially air travel), waste management, water management and green on the campus.



We will further develop our next level **campus ecosystem** to ensure the ecosystem of the TU Delft Campus meets the needs of innovative companies with top talent, a strong start-up community, field labs, and research facilities in a wide range of research areas.



We will develop a university wide **digital strategy**, in which we aim to improve the quality of interaction and communication among faculties and services to ensure that university (digital) services and operations can respond to demand and can deliver optimal support to our primary processes.



We will establish **user-centric services** for all TU Delft users and design operational processes in an integrated and uniform way where possible. Moreover, we aim to put the end user in the driver seat of business intelligence and develop a **vision for the disclosure of management information** at all levels of control.



We will improve our inclusive **risk management** framework and implement that to systematically identify, manage and monitor risks at multiple levels and in different categories and determine the risk appetite. We will develop a uniform approach to health, safety and environmental awareness.



We will further develop our university wide level of **information security**, both in the supporting services as in the faculties.



6 Implementation

An implementation approach will be developed, in particular for the priorities that transcend the faculties or university services. The purpose of this approach is to:

- Emphasize the urgency (given the risks and/or complexity of the issues)
- Increase transparency and accountability with regard to (the pace of) the execution of activities
- Strengthen coordination of implementation
- Aim for cohesion between projects
- Aim for coherence in the approaches to change and the connection between our primary processes and operations.
- Make targeted capacity available for new processes, in addition to the regular activities that take place.

The implementation approach needs to have a solid and transparent embedding within the organisation, preferably in the form of a strategic programme 2022-2024.

The Executive Board therefore acts as the principal “owner” of this programme, which will, in accordance with the internal portfolio allocation within the Executive Board, be divided into three subprogrammes. Each subprogramme will be coordinated by a member of the Executive Board in line with the portfolio allocation.

The Strategic Priorities 2022-2024 and the corresponding implementation agenda will also be incorporated in the annual institutional budget. The budget is part of the Planning & Evaluation Cycle.



Colofon

TU Delft Strategic Priorities 2022-2024

Vormgeving

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Fotografie

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