

Research - Summary

In addition to the strong multidisciplinary cooperation and partnership with research organisations, governments, and corporations, TU Delft is committed to creating a living lab for facilitating the implementation of research ideas. Research at the university can be clustered into 4 initiatives:

1. [Delft Health Initiative](#)
2. Delft Energy Initiative
3. Delft Global Initiative
4. Delft Deltas, Infrastructure and Mobility Initiative

On a global scale, TU Delft is consistently ranked high for its technical innovations. For its contributions towards Industry, Innovation and Infrastructure (SDG 9), TU Delft was ranked first in the Netherlands and fourth in the world by Elsevier. Although the University does decently well in the other SDGs, significant action is required in the field of Climate Action, where it is ranked below the top 100. TU Delft has fostered a strong partnership with national & international universities, governmental bodies, corporates and start-ups. In addition to regional and national cooperation (e.g., 4TU, Leiden- Delft-Erasmus), TU Delft is a part of international ventures like the IDEA League and the International Universities Climate Alliance.

Delft Health Initiative

Around 30% of the scientists in TU Delft are involved with healthcare-related research ranging from bionanoscience to sustainable medical technologies. Research is focussed around 4 main themes: medical imaging, cure and care, targeted molecular therapy, and rising stars. A partnership with the Erasmus Medical Centre strengthens the research through complementary resources and expertise.

Delft Energy Initiative

The initiative facilitates education, research, and innovation related to future technologies, focussing on SDG 7, 9, 11, 12, and 13. It consists of 4 main pillars:

- **Wind Energy Institute:** multidisciplinary research brings together six different faculties and thirteen research groups within TU Delft.
- **Urban Energy Institute:** delivering a carbon-free Dutch energy system by 2050.
- **PowerWeb Institute:** modeling and designing power systems which are robust enough to handle changing and distributed energy sources.

- **E-Refinery:** accelerate the transition towards sustainable production of chemicals and fuels by focusing on carbon-neutral fuel, seasonal energy storage, and de-fossilised chemical industry.

Delft Global Initiative

This initiative promotes strong global partnership geared to solving global challenges. The work is broadly classified into five themes:

- Healthcare
- Water
- Energy
- Disaster relief and response
- Urbanisation

Delft Deltas, Infrastructure and Mobility Initiative

This initiative centres around solutions for water safety and urban mobility. Work is spread across the themes of urban infrastructure, deltas of the future, and airports of the future.

Climate Institute

In addition to the above four research initiatives, the Climate Institute is active across all eight faculties, focussing on data-driven solutions for urban climate, radiation balance, ice and sea level change, water cycle and Geo-engineering.

Innovation and student teams

Yes!Delft, one of Europe's leading tech incubators, is located on the TU Delft campus and has successfully helped turn student ideas into businesses in the field of clean tech.

The Green Village is a one-of-a-kind living lab for scaling sustainable solutions and providing a platform for real-life collaboration. Supported by many stakeholders, it houses some impactful projects like Windows for the future, Converge, Delft X Water tank, Dreamhus.

Furthermore, TU Delft houses many student teams, known as D:DREAM teams. Many of these teams focus on the challenges of sustainability, such as green mobility and living. Examples include:

- Eco-Runner Team Delft
- Delft Hyperloop
- Vattenfall Solar Team
- Solar Boat Team
- Nova Electric Racing
- AeroDelft
- Forze Hydrogen Electric Racing
- Delft University Wind Turbine
- Symbiotic Urban Movement