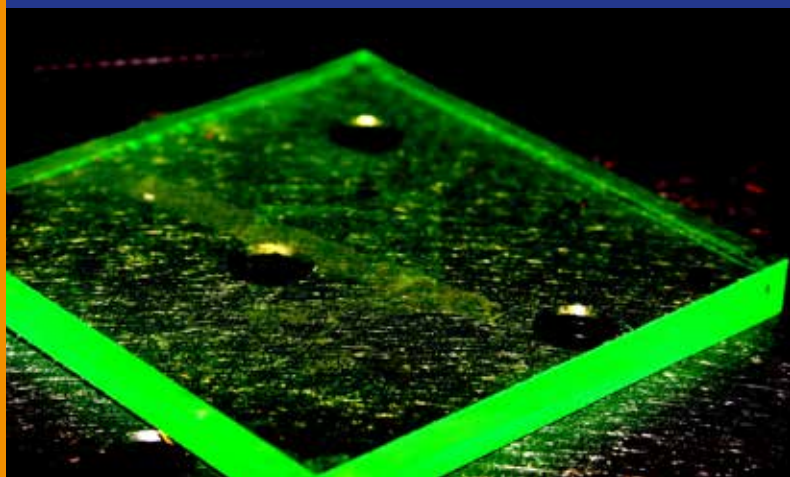
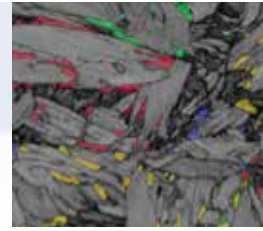
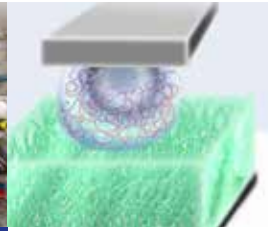


Technological breakthroughs require performance breakthroughs of materials

High-Tech Materials form the key to
innovative and sustainable technology





Progress in research and technology calls for the development of new, advanced materials with high added value. It requires fundamental insight into the complexity of advanced materials, at the micro- and the nano-scale.

New performance materials must address the entire knowledge chain from developing design principles, synthesizing new compounds, and processing these in an environmentally conscientious way, maintaining the smallest possible environmentally negative footprint.

Issues such as integrating different classes of materials, from metals to ceramics and organics, in systems with ever increasing complexity and functionality, bottom-up by using the means of nanotechnology and materials chemistry and physics, should be tackled. The breadth of this field is enormous, as are the implications. The 3TU Federation approaches these challenges through the Research Centre High-Tech Materials.

The 3TU Research Centre High-Tech Materials

- provides an impulse to the design of new materials and stimulates the development of new knowledge on materials in high-quality academic research.
- initiates research aimed for the design of breakthrough materials.
- optimises coherence and interaction within the broad field of materials science in the Netherlands.
- focuses on the visibility of the field “materials science”, not only for international academic and industrial partners, but also for young prospective students, who are often not aware of the challenges and the importance of the field.

The main activities of 3TU.HTM are:

- The research programme “New horizons in designer materials”
- Enhancing the visibility of Materials Science and Engineering
- The yearly symposium “Dutch Materials”
- Summer schools and graduate courses
- Introducing materials science in high schools and Bachelor programmes
- Exploring possible Advanced Research Centre(s)