



Mission statement of the FIT

Since the beginning of mankind, the development and use of innovative materials as well as the construction of complex systems based on these materials have been key technologies. This has not changed to this day, because new materials and materials systems promote technological progress and contribute to innovative solutions to social problems.

We pursue the development of new, bioinspired and interactive materials and material systems and the basic research for the generation of such systems with commitment, motivation and passion. By developing new technologies, we make a significant contribution to the technical and social challenges of the present and the future.

Vision

The Freiburg Center for Interactive Materials and Bioinspired Technologies (FIT) is a research institution of national and international importance for the development of future-oriented, innovative materials and materials systems. Special focus is placed on materials systems that react to changes in the environment and thus, inspired by plants and animals, have life-like functions. Following the model of living nature, these "vital" materials systems are interactive, adaptive, energy-autonomous, self-repairing, self-improving or even learning. These extraordinary properties and functions make them a decisive advance in the sustainable development of technology and society.

Mission

The FIT is committed to increasing and disseminating knowledge in the field of research on interactive and bioinspired materials and materials systems and to making it available to science and the public. The FIT stands for basic research that lays the basis for the development of new materials and technologies. The projects handled by FIT consist of individual research projects and long-term collaborative research projects and are supported by interdisciplinary cooperation between scientists from chemistry, physics, engineering, biology, materials sciences and medicine. An important aspect here is learning from living nature and transferring functional principles to technical systems. The common goal of all FIT employees is to facilitate and conduct groundbreaking basic research that is oriented towards solving important social challenges. This research can position itself at the top of the global scientific competition and plays an important role in the international scientific discourse in the most important profile areas.

FIT deals with the development of interactive and intelligent functional materials, foils and surfaces as well as material-integrated (micro)systems in order to create novel adaptive and active (polymer-based) materials. Furthermore, inspired by nature, new materials for energy conversion and energy storage are developed and coupled with system functions. Furthermore, energy-autonomous embed-

ded (micro)systems are being developed that generate energy directly from their environment. Another central focus is research on biomimetic, biobased and bioactive material systems. This includes the bioinspired and biomimetic construction of materials systems and the development of new active hybrids of synthetic and biological components as well as the bioactive functionalization of materials and (micro)systems to enable them to interact with proteins, cells and tissues.

Guiding principles: interdisciplinary–cooperative–supportive–communicative

We work in an interdisciplinary, transparent and constructive manner in basic research-oriented collaborative projects. We are constantly striving to opening up new fields of research and building up or expanding competencies.

We are well embedded in the organization and research of the University of Freiburg. As a central scientific institution of the University of Freiburg, we are committed to the mission statement of our university.

We cooperate to a high degree with regional, national and international research institutions and maintain close relationships with partners from science, industry and society.

Our work is characterized by synergy-oriented cooperation based on a culture of creativity, scientific honesty and the pursuit of excellence.

Our scientists are supported in their quest for excellent research by outstanding core facilities and a modern infrastructure.

The cooperation of the members of the FIT is characterized by mutual respect and trust and cooperation across professional, organizational and hierarchical levels. We value team spirit and good cooperation and promote partnership. We involve our employees in the planning and design of research topics and objectives and give them a great deal of freedom in carrying out their research work.

We support and promote scientists in all stages of their academic careers. All members of the FIT are given equal opportunities and conditions and the performance of each individual is appreciated. Equal opportunities and diversity are the cornerstones of our actions.

We are committed to supporting the compatibility of family and career irrespective of lifestyle and situation—from childcare to eldercare.

We communicate the contents and results of our work to the scientific community and the general public.

Our research contributes to the sustainable development of society. Our actions are based on social, ecological and ethical standards. We are committed to the responsible use of natural resources.