

## Questions directed to the Bio-economy Council

### **Who finances the Bio-economy Council's work?**

The members of the Council are unpaid for their work. The six members of staff at the administrative office, which is located at acatech, are funded by the BMBF (Ministry of Education and Research).

### **Who are the Bio-economy Council members, and who chairs the Council?**

The Bio-economy Council consists of:

**Prof. Dr. Dr. h.c. Reinhard F. Hüttl** (Chair), Chair of the Executive Board, GFZ German Research Centre for Geosciences Potsdam and President of acatech, Professor of Soil Protection and Recultivation Brandenburg University of Technology Cottbus

**Prof. Dr. Bernd Müller-Röber** (Deputy Chairman), Professor of Molecular Biology, Max-Planck-Institute of Molecular Plant Physiology and University of Potsdam

**Dr. Dr. h.c. Andreas J. Büchting** (Deputy Chairman), Chairman of the Supervisory Board KWS SAAT AG

**Prof. Dr. Achim Bachem**, Chairman of the Board of Directors, Forschungszentrum Jülich GmbH

**Dr. Helmut Born**, Secretary-General of the German Farmers' Union (Deutscher Bauernverband e.V.)

**Prof. Dr. Hannelore Daniel**, Technische Universität München (TUM), Molecular Nutrition Unit

**Prof. Dr. Utz-Hellmuth Felcht**, Managing Director, One Equity Partners Europe, Munich, Member of the acatech Executive Board

**Prof. Dr. Thomas Hirth**, Director, Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB) and Institute for Interfacial Engineering at the University of Stuttgart

**Prof. Dr. Folkhard Isermeyer**, President, Johann Heinrich von Thünen Institute (vTI) Braunschweig, Federal Research Institute for Rural Areas, Forestry and Fisheries

**Dr. Andreas Kreimeyer**, Member of the Board of Directors BASF SE

**Prof. Dr. Thomas C. Mettenleiter**, President, Friedrich-Loeffler-Institute (FLI) Isle of Riems, Federal Research Institute of Animal Health

**Prof. Dr. Alfred Pühler**, CeBiTec, Bielefeld University

**Prof. Dr. Manfred Schwerin**, Professor of Animal Breeding, University of Rostock and Director, Research Institute for the Biology of Farm Animals

**Prof. Dr. Carsten Thoro**e, Former President Johann Heinrich von Thünen-Institute

**Prof. Dr. Wiltrud Trefffeldt**, Director Bioprocess R&D, Dow AgroSciences LLC, Indianapolis, USA

**Prof. Dr. Fritz Vahrenholt**, Chief Executive Officer, RWE Innogy GmbH

**Prof. Dr. Joachim von Braun**, Director, Center for Development Research (ZEF), Bonn

**Prof. Dr. Alexander Zehnder**, Director, Water Research Institute, University of Alberta, Edmonton, Canada

**Dr. Christian Patermann** (permanent guest), NRW Government Advisor on Knowledge-Based Bio-Economy

### **– What criteria are used to select members of the Bio-economy Council?**

The Council's members are drawn from academia and business, as well as that part of the scientific community with close ties to politics. The diversity of the bio-economy's parameters and spheres of activity is reflected in the composition of the Council. The Council's members are appointed by acatech in conjunction with the BMBF.

### **– How does the Bio-Economy Council publicise the findings of its work?**

The Council is responsible for prioritising the topics it works on. Strategic discussions with the relevant ministries, social groups, scientific boards and business bodies prevent the form and substance of the Council's remit duplicating work carried out by the other institutions cited above. For the aforementioned goals to be attained, there has to be harmonisation between certain political, social and scientific parameters and the correlative technological and scientific spheres of activity. It is equally important to consider the economic chain in its entirety, from the production stage to the end product.

The findings of the Council's work are published in the form of recommendations. Publications are planned for the duration of the project; these will take the form of commentary pieces as well as project and conference reports (along the lines of the publications produced by acatech), and each will focus on one of the core areas the Council is looking at. The recommendations will initially be submitted to acatech's executive committee, and then relayed to the Ministry of Research in a presentation detailing the Council's findings.

Provision has also been made for the Council to give its opinion on current questions or inquiries relating to politics, science and business. The recommendations and judgements of the Council will be published in print. Specialist publications (journal articles, monographs) are also scheduled.

### **– What projects is the Bio-economy Council working on?**

The bio-economy can be broken down into different subject areas. The main ones include the primary production of biomass, the food economy and the industrial bio-economy. In the last couple of decades all areas have benefited in particular from the stimulus provided by genome research and molecular biology, both of which have contributed to a wholesale transformation of the agricultural and food sector, and have paved the way for the development of an industry based on bio-resources. The exponential growth in knowledge about molecular biological processes will continue to pioneer developments in the health, service and industrial sectors. There will be a significant increase in the diversity of uses, products and services, ranging from a reappraisal of existing and new systems of land use, processing and harvesting technologies, optimised breeding methods, the development

of plants with new characteristics, tailor-made foodstuffs, biodegradable plastics, various applications of gene technology in industrial development, biologically based fuels, to new technologies of bio-refinery. Many of these topics also enable us to improve the efficiency and sustainability of our handling of biotic and abiotic resources, and thus contribute to climate protection.

### **– What targets has the Bio-economy Council set itself?**

The Council expects to achieve the following concrete results:

- A well-substantiated overview of the opportunities and future prospects of the bio-economy in Germany from a scientific and business perspective.
- Scientifically based recommendations for strategic measures to improve the parameters for innovative research, technological developments, and the introduction and implementation of technologies, processes, services and products.
- The development of rigorous scenarios and the drawing up of recommendations for the long-term configuration of bio-economy-related parameters in research, education and student development.
- The development of a network of relevant actors from science, business and politics with the aim of optimising the harmonisation on strategic questions between these relevant actors.

### **– How will quality be safeguarded?**

The Council has set itself a programme of work based on the project blueprint devised jointly by acatech and the BMBF. The Council reports to acatech's executive committee twice a year on the progress of its work.

The Council publishes commentary pieces and reports on the project topics worked on by Council members with the assistance of outside experts. Workshops and symposia are planned on individual topics; the findings of these will appear as publications.

### **– Collaboration with other organisations**

The Bio-economy Council will establish contact with other organisations in Germany that are also dealing with topics relevant to the bio-economy. These include the German Advisory Council on Global Change (WGBU), the German Council for Sustainable Development (RNE), the Advisory Council on the Environment (SRU); and in the academic sphere, the Union of the German Academies of Sciences and Humanities, the Scientific Council (WR), the German Academy of Science and Engineering (acatech), and the Berlin–Brandenburg Academy of Sciences and Humanities (BBAW).

**– What does the Bio-economy Council offer that other advisory boards in Germany do not?**

The knowledge-based bio-economy is not only important for further growth and employment, but also for overcoming global challenges. Examples of this are the growing need for safe and high-quality foods, the prevention and combating of food-related illnesses, the threat to sustainability and the safeguarding of sustainable agricultural production by climate change in particular, and the growing need for renewable resources for ecologically efficient industrial production. The protection of the climate, the environment and resources need to be looked at in conjunction with technological developments.