

Foreword



The years 2007 and 2008, which this activity report covers, turned out to be of prime importance for the future of the Institute: not only were they the last years before the next Program-Oriented-Funding (POF)-evaluation but they were the years, which have led to the foundation of a new institute, the Helmholtz-Zentrum Berlin für Materialien und Energie (HZB to be formed by the merger of HMI and BESSY. This new Centre has started to operate on January 1st 2009.

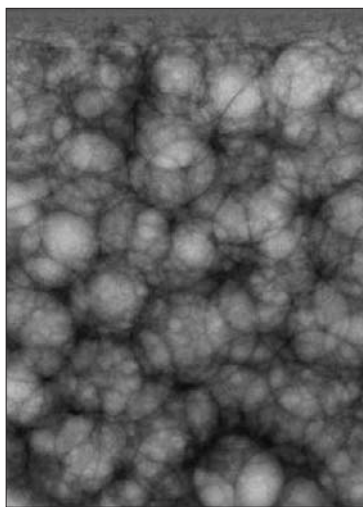
The merger of HMI and BESSY, the two institutions in Berlin operating large facilities, had been in the discussion with strongly varying intensity and perspective over many years. It was in the last couple of years only, that the discussions about merging HMI and BESSY intensified and found support on the political level so that a clear perspective for realisation emerged. The necessary preparations on the scientific, legal and structural level required a strict plan in order to

be ready on December 31st 2008 for the start of the new merged Centre on January 1st 2009. The resulting timetable also included the preparation of a Structure and Development Plan for the new Centre, which was evaluated by an international panel led by Professor R. Eichler then head of Paul-Scherrer-Institut (PSI). The panel supported the plan and made very helpful suggestions for the program and the structure of the new Centre. In a next step the Hahn-Meitner Institut Berlin (HMI) changed its name to Helmholtz-Zentrum Berlin für Materialien und Energie in preparation for the merger. This was a difficult step, because the old name stood for nearly 50 years of successful scientific history in the spirit of the two outstanding scientists Otto Hahn and Lise Meitner. With the legal registration of the new merged Centre in November 2008 the formal steps were completed everything was ready for the start on January 1st 2009. To be really ready for the new start, my successor Prof Dr. Anke Pyzalla took office as the new Scientific Director and Chief Executive on October 1st 2008.

Despite of all these fundamental changes occurring in the last two years science and service to the community flourished as the report clearly shows. Let me emphasize a few highlights: in the Solar Energy Division Dr. Bär has been appointed as a Junior Professor for Thin Film PV jointly with the Brandenburgische Technische Universität Cottbus and we have finally founded the PV-Kompetenz-Zentrum Berlin (Centre of excellence for thin film and nanotechnology for photovoltaics Berlin) as a separate structure within HZB. This allows us to make contracts



Airbus A 300: Researchers at HZB on a parabolic flight



X-ray of a liquid metal foam



Spot on – Remembering 1998 when BESSY II started user operation

with industry for further joint development of PV technology including the provision of industrial scale equipment by the partners. A further step forward for our own technology department was moving of all members and laboratories into one coherent location. In order to prepare for a widening of our Renewable Energy program and to tackle a challenge of growing concern we had a very successful international workshop about photocatalytic fuel production. The workshop showed, that a our knowledge and experience in photovoltaics is an ideal base for such a program.

In the Structural Research Division the central task of serving the user community through BENSCH continued to be very successful: the number and the quality of the proposals is steadily increasing, which is also reflected in the resulting number of high impact papers. In house research has produced very nice examples of the complementary use of neutrons and photons showing the strength and potential of this approach, which is now one of the main strategic pillars of the new Centre. Our instrument renewal program has been continued along the recommendations of the international advisory group. We are convinced that this will enhance the facilities performance significantly and enable new science to be tackled. A highlight of this program is the complete rebuilding of our time-of-flight instrument NEAT, which with its unique possibilities will bring NEAT back into the class of the leading instruments of this type. The construction of our High-Field-Magnet is progressing well after extended studies of the stability of the SC-wires. This ensures that the wires to be used and

the making of the cable-in-conduit will meet the specifications for the performance of the magnet. There were chances for celebrations in 2008, too: in June 2008 we celebrated the 50 anniversary of reactor based neutron research in Berlin. Many of our present users and colleagues from other Neutron Research Centres were attending the meeting and exchanged memories and experiences from the past to the present days.

The last but definitely not the least important task we had to deal with, were the preparations for the new round of POF-evaluations, which will take place in early 2009. All parts of the new HZB will be evaluated in 2009. The task has been as demanding as 5 years ago, but the resulting programs look very good thanks to the hard work of many of the scientists.

The motivation and the commitment of all members of the institute made all the achievements in research and service to the science communities possible. Many thanks to you! We also thank our associates for the continued support and the steady funding.

This is the last report, which I am responsible for, since I shall leave in mid 2009 after more than 15 years in responsible positions at HMI and HZB. It is a pleasure for me to see the new centre operating and I am sure it will reach its goals and will continue to provide excellent conditions for doing research. I wish all the staff the very best, the board of directors good luck and the HZB a splendid future.




View into the Neutron Guide Hall II at research reactor



Preparing a fuel cell for tomographic imaging



Scientific Director (CEO)
Prof. Dr. Michael Steiner (left)
Administrative Director
Dr. Ulrich Breuer (right)