

Synchrotrons in East–Central Europe

The latest directives of the European Council stress the need for ‘...improving the framework conditions for innovation and launching a new generation of world-class research facilities’ not only in Pan-European dimensions but also in a regional scale.

The synchrotron radiation users community of East-Central Europe greatly contributed to recognition of the importance of the advanced medium size regional infrastructure investments ‘...enabling globally competitive basic and applied research’. A notable step in this direction was done at the conference “Synchrotron Facilities for the Development of Science and Technology in Central and Eastern Europe” held in November 2007 in Brno (Czech Republic). Both projects, Polish which had been pursued and developed for ten years and the Czech initiative which emerged a year ago, received then an understanding and a provisional agreement from the representatives of the European Commission institutions (DG Research and the European Strategy Forum on Research Infrastructures - ESFRI). This meant a significant change of a position which originally did not take into account the possibility even of a single synchrotron centre in this part of Europe. Another important result of this conference was working out the means of coordination of the two projects and defining the way a progress in construction of the light sources would be monitored by the above mentioned institutions.

In consequence the Memorandum of Understanding for Collaboration between Academy of Sciences of the Czech Republic and Jagiellonian University (referred further to as "MoU") has been signed on November 27, 2007 in order to achieve complementarity of designs and research possibilities of the new 3rd generation, medium sized synchrotrons in Brno and Kraków. The MoU parties expressed interest to cooperate in the technical and scientific activities involving the construction of synchrotron radiation sources and their beamlines in order to assure complementarity of both facilities. Among others the cooperation would include an exchange of technical specifications and design information, exchange of highly qualified scientists or engineers and assurance of mutual access to the beam-lines at the respective synchrotron facilities.

The construction of synchrotrons in Central and Eastern Europe was discussed in the frame of the ESFRI meeting in Brdo (Slovenia) on March 7, 2008. In order to ensure complementarity and promote an effective collaboration between the parties a committee has been appointed with the following members: Dr. Yves

Petroff (France), Dr. Beatrix Vierkorn-Rudolph (Germany) and Prof. Andras Falus (Hungary).

The extended meeting of the Czech–Polish Common Board held on April 8, 2008 at Kraków

The creation of the Czech – Polish Common Board (CPCB) has been one of the prerequisites of collaboration on the synchrotron projects in our countries.

The representatives in CPCB are for the Czech Republic Ing. Vladimír Cháb (Institute of Physics, ASCR), Prof. Jiří Drahoš (ASCR), Prof. Stanislav Kozubek (Institute of Biophysics, ASCR), and for Poland Prof. Andrzej Burian (Institute of Physics, University of Silesia), Assoc. Prof. Edward A. Görlich (Institute of Physics, Jagiellonian University), Prof. Krzysztof Królas (Institute of Physics, Jagiellonian University).

On April 8, 2008 the first open meeting with six participants from the Czech Republic and eighteen participants from Poland took place in Kraków (see the photo below). The Conference was inaugurated by Prof. Karol Musioł, the Rector of Jagiellonian University. The presentations regarding the projects by the Czech and the Polish participants referred to actual organisational status, accelerator & storage ring proposals and beamlines planned at respective facilities.

In conclusion it was stated, among others, that the Czech synchrotron, which closely follows the ALBA (Barcelona, Spain) design can not be a subject of substantial changes. The Polish design will preferably use technical solutions of the Swiss Light Source (SLS) facility; while may be a subject of further studies/consultations if recommend by ESFRI experts. For the sake of complementarity this latter project will focus on a high current and time structure.

During the meeting a report with broad conclusions has been prepared and subsequently sent to Robert-Jan Smits (Director DG Research B) and Carlo Rizzuto (ESFRI Chairman).
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