

My thirty years with the Polish Synchrotron Radiation Society

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PSRS Secretary in the years 1991 - 1995, 1999 - 2002

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I am one of 20 founding members of the Polish Synchrotron Radiation Society. I remember very well how the idea was born. It was the meeting in Krems town in lower Austria in the autumn of 1990. The Polish delegation was invited to discuss the Polish involvement in constructing a nuclear reactor for science. It turned out during the discussion that we not only used neutrons in our research, but many of us are already exploiting synchrotron radiation and are fascinated by the numerous possibilities offered by this tool. There were delegates from scientific institutions and universities in Krakow, Poznan, Warsaw, and Wroclaw. I do not remember all by names, but there was prof. Julian Auleytner, prof. Andrzej Kisiel and scientists from his group, prof. Izabela Sosnowska, prof. Maria Lefeld-Sosnowska, and doctors Jacek Grochowski, Jerzy Gronkowski, Ewa Sobczak, Jadwiga Bąk-Misiuk and also a few scientists from the Institute of Low Temperature and Structure Research, PAS in Wroclaw. We have been sitting in the evening with a glass of young wine and complaining about how difficult it is to get beam time at the synchrotron because we were not experienced in writing the scientific proposals at the international level. Moreover, in the case of the proposals being accepted, we had a whole new set of problems: how to get travel and accommodation money for the group working 24 hours at the experimental station? We needed support. So, at this very moment, the concept arrived of the creation of society, bringing together Polish scientists interested in using synchrotron radiation and supporting the development of research

conducted using synchrotron. At the end of the Krems meeting, we decided to meet again in Poland and look for the fastest possible way to realize our idea.

Taking advantage of the hospitality of the X-Ray group from the Institute of Experimental Physics at Warsaw University, headed at that time by Maria Lefeld-Sosnowska, we have organized a short meeting at her office. The groups from Krakow and Warsaw gathered and unanimously decided to organize a scientific seminar. Andrzej Kisiel proposed Przegorzały near Krakow as a place for this event. The first meeting of the Polish synchrotron radiation users was held on 11-12 February 1991. The Polish scientists reported on the posters the results of their experiments using synchrotron radiation. Some information has been provided about available synchrotron facilities and those under construction (e.g., European Synchrotrons Radiation Facilities) and planned. Scientists from European Synchrotrons have been asked to explain the procedures for applying for beam time at different facilities and describe the experimental possibilities. During the night discussions, the concept of establishing the Polish Synchrotron Radiation Society was converted into a fundamental objective. None of us had experience with the formalities needed to register the society officially as an independent. We know the requirements now, but it was a new exercise then. Nevertheless, working together and sharing experiences (e.g., dr Paweł Tomaszewski, ILTSR, Wrocław provided the sample statute of a society already registered in a court, Ewa Czarnecka-Such (UJ) was the contact person in court in Krakow). Finally, on 5 May 1991, the Polish Synchrotron Radiation Society was registered officially. From the idea in Krems to the creation of society passed only half a year.

The main aim of the Society was and still is a scientific and educational activity. In particular, it is crucial to support the development of scientific research using synchrotron radiation (SR) and to popularize this type of research in Poland. The PSRS field of interest currently includes free-electron lasers (FEL) besides synchrotrons. From the beginning in 1991 up to 2020, I was involved in the activities of the Management Board. First, I was the PSRS Secretary (1991-1994, 1999-2002), next Vice-president (2002-2005), and then President (2005-2011). From 2011 to 2017, I acted as a member dedicated to contacting international organizations, and then, up to 2020, I was a member of the PSRS Audit Committee. My active activity for the PSRS was 29 years altogether. The main involvements of the Society, and therefore mine, in those years, were the organization of international (ISSRNS) and national (KSUPS) meetings. Someone may ask why so complicated name (International Schools and Symposium for Synchrotron Radiation in Natural Science) was chosen for international meetings? The reason was straightforward. We wanted to use all words to ensure more accessible access to subsidies to finance conferences. It is easier to get support sometimes for schools, other times for symposiums, but it is going about science in general, not just physics.

International meetings provided us with an overview of the latest research techniques, technical solutions, and scientific achievements. We were new to the conference market. It was not easy to invite recognized scientists, so we focused on young but committed people who would come to us willingly. Now, these people are very famous and hold high positions.

National meetings enabled Polish scientists to present their achievements in synchrotron research and consolidate the research community, simply get to know each other.

I think I have attended almost all of these meetings and remember them with pleasure.

Apart from my involvement in organizing the conferences, I tried to organize dedicated, in particular, to X-ray absorption technique workshops. Below are photos from the workshop in November 2006 with the participation of Bruce Ravel, with whom many of us have established close contact. Fifty-two young scientists from 15 research centers in Poland took part in this workshop at IP PAS in Warsaw.



From the beginning, we were looking for a way to facilitate Polish scientists' access to synchrotron research. Much of my activity has focused exactly on this. First of all, since 1992, we have been making efforts to ensure Poland's participation in the consortium ESRF. Many discussions at General Meetings and Management Board Meetings concerned the strategy to convince the Ministry of Science of the need to be a member of this international research infrastructure. We considered joining alone or within a consortium of countries from the Eastern bloc. Finally, after 12 years, starting from July 2004, Poland officially became a member of ESRF, and from July 2006, an associated member with a share of 1% of the ESRF budget. The Ministry of Science pays the Polish share through a grant awarded to the Institute of Physics PAS in Warsaw. The Polish users performing an experiment at the ESRF have to acknowledge this in publications reporting the results of experiments carried out there.



From left to right: Administrative Director Helmut Krech, Prof. Jacek Kossut Director If PAN and Director General Bill Stirling signing the agreement.



From left to right: The Director General of the ESRF, Bill Stirling; the two Polish scientists at the ESRF, Maciej Lorenc and Johanna Hoszowska; and Prof. Krystyna Jablonska-Lawniczak, Prof. Bogdan Kowalski and Prof. Jacek Kossut, from the Polish Academy of Sciences

Moreover, I was a member of the Expert Group dedicated to large research infrastructures set up at the Ministry of Science for several years. One of our activity's results was funds for Poland's access to the European Free-Electron Laser Facility at DESY. On June 5, 2007, the German Federal Minister of Education and Research, Dr. Annette Schavan, officially launched the European X-ray laser facility XFEL project. The Polish Ministry of Science representative, Dr. Jacek Gierlinski, was present at the ceremony. Starting from

that year, I was actively involved as a Polish representative in the Working Group on the Scientific and Technical Issues at XFEL. I was also, up to 2012, a member of the E-XFEL Scientific Advisory Committee (SAC).



On June 5th, 2007, Dr. Annette Schavan officially launched the European X-ray laser facility XFEL project. Poland was already involved.



XFEL SAC and MAC meeting in 2010 at DESY



Visiting XFEL with SAC during construction.



With Dr. Thomas Tschentscher XFEL Scientific Director

When the PSRS celebrated its 15th anniversary in 2006, the project of the Polish National Synchrotron was already under preparation and got a green light to realize from the government. The project was finally approved in April 2010, and the synchrotron facility was erected in 2015 at the new campus of Jagiellonian University in Cracow.

It would not be justified to claim that all the achievements mentioned above are result only PSRS activity. However, I believe that the joint effort of PSRS members substantially contributes to them.

Another essential part of my activity in PSRS was working first at the European Synchrotron Radiation Society (ESRS) and next in ESUO (European Synchrotron and FEL Users Organization), where I was acting till 2021 as the vice-chair. These organizations have been created to support synchrotron radiation users at the European level. This activity resulted in the creation of European programs in the framework of FP6 (project IA-SFS) and FP7 (ELISA and CALIPSO), supporting European scientists performing research

on large facilities. On the ELISA project board, I was representing ESUO. In the CALIPSO project, I was a coordinator of transnational access activity (TAA) work packages. I am sure many of us have used these programs, which not only paid for travel and accommodation during experiments on European national synchrotrons but also paid synchrotrons part of the cost of used beamtime. Thanks to the intensive work of ESUO and lobbying through national representatives in the European Commission, it was possible to open a competition for a similar program in the frame of Horizon 2020 and obtain CALIPSO plus project, which has just ended. ESUO represents about 30 000 users of the European synchrotrons and FEL light sources. Currently, 30 European countries (including Turkey and Israel) are ESUO members and are represented by delegates. At present Agnieszka Witkowska and Ryszard Sobierajski represent Poland in ESUO. The general mission of ESUO is to coordinate the synchrotron and FEL radiation user activities in Europe and provide support to the users to access synchrotron and FEL beamlines in Europe. Trip supports to European synchrotrons has greatly helped scientists access these devices. However, the user's support is still unclear in the frame of the Horizon Europe program.

In 2006 we celebrated 15 years of PSRS in Zakopane, Geovita. In 2011 Institute of Physical Chemistry PAS in Warsaw hosted KSUPS'9, where we celebrated 20 years. In 2016 we decided again to organize the conference in Ustron-Jaszowiec. In this place, the first ISSRNS conference took place in 1992, and also a few others. In Ustron-Jaszowiec we celebrated 25 years of PSRS activity. Below are some photos to memorize these happy hours.



ISSRNS-2006. Celebration of PSRS 15 years with the executive board. Excursion to the Tatra mountains. Conference dinner.



KSUPS'9 2011. Celebration of PSRS 20 years. K. Jablonska presenting history of PSRS. G. Wrochna introducing idea of Polfel. Group photo.



ISSRNS-2016. Celebration of PSRS 25 years. Three Presidents cutting the special cake Bronisław Orłowski, Krystyna Jablonska, Maciej Kozak. Conference excursions to castle in Pszczyna and Tyskie brewery.

Finally, in these difficult times, I would like to dedicate to all of us Albert Einstein's words: "The most beautiful thing we can experience is the mysterious. It is the source of all true art and science. He to whom the emotion is a stranger, who can no longer pause to wonder and stand wrapped in awe, is as good as dead; his eyes are closed." - don't close your eyes.