



Reminiscences about 20 years of cooperation on biomedical engineering between Finland and the Baltic States

After the Baltic States regained their independence in the 1990s, I started to create contacts with them, especially with Estonia, to help in developing the education and research in biomedical engineering. During my first visit to Tallinn University of Technology in 1993 I recognized that they had a need for relevant study materials in biomedical engineering. So we sent several textbooks and other teaching materials to Tallinn. We also discussed Estonian students' visits to Tampere University of Technology. Very soon we received several students for shorter and longer visits. After my initiative, all of our biomedical engineering education was turned into English in 1991. So it was easy for the Estonian students to participate in our classes.

To have a national society for biomedical engineering and medical physics is important for every country. In autumn 1993 I sent information on the Finnish Society for Medical Physics and Medical Engineering to Tallinn and Kaunas to facilitate and encourage them in establishing such a society. This information included the constitution and annual reports of the society. The Estonian society, established in 1994, celebrates its 20th anniversary this year.

In 1994 I gave an intensive course on Bioelectromagnetism in the University of Tartu. It had about 30 participants from all Baltic States (www.bem.fi/edu/ > 1994 Tartu). Later I gave five similar courses in Tallinn.

From 1970 the congress series "Nordic Congress on Medical Physics and Biomedical Engineering" was held every three years in Nordic countries for 25 years. As there were numerous congress series in this field, this series was losing its importance and the number of participants was continuously decreasing. When it again came Finland's turn to arrange the congress in 1996, there was not too much interest in it. Then I had the idea to extend the region of participants and include the Baltic States. The colleagues in the Baltic States needed urgently a possibility of creating academic contacts to the Western world. Arranging such a meeting in Tampere also gave an opportunity to start a new con-

ference series: International Conference on Bioelectromagnetism, ICBEM. These two events were arranged jointly in Tampere as the 10th Nordic–Baltic Conference on Biomedical Engineering & 1st International Conference on Bioelectromagnetism (www.rgi.fi/nbc1996/nbcinfo.htm). Immediately after these conferences a satellite symposium was arranged in Tallinn on the topic Bioelectromagnetic and Biomechanic Measurements.

The conferences in Tampere were attended by more than 400 active participants from 36 countries of Europe, North and South America, Asia and Australia. There were in total 350 scientific contributions of which 236 were oral presentations given in eight parallel sessions. The number of organized sessions was 19 with 74 invited papers. Of all the papers 113 originated from the Nordic Countries and 35 from the Baltic States.

In Tampere it was decided to organize the 11th Nordic–Baltic Conference on Biomedical Engineering in Tallinn in 1999 with Professor Hiie Hinrikus as President. The 11th NBC was a great success (www.cb.ttu.ee/nbc99/).

In 2006 we started the project "European Virtual Campus on Biomedical Engineering, EVICAB" (www.evicab.eu/). The partners of the EVICAB project are Tampere University of Technology, Mediamasteri Group from Tampere, Tallinn University of Technology, Kaunas University of Technology, Linköping University and Brno University of Technology. The purpose of the project is to provide an open access curriculum in Biomedical Engineering on the Internet. It includes several high-quality video courses of which most are recorded from the doctoral seminars organized by the graduate school International Doctoral Programme in Biomedical Engineering and Medical Physics, iBioMEP. At present EVICAB includes altogether nine courses. Two of them were recorded at Tallinn University of Technology.

Cooperation between Finland and the Baltic States also includes postgraduate studies. For example, Ms

Asta Kybartaitė prepared her doctoral thesis on EVICAB and defended it at Tampere University of Technology (www.evicab.eu). Dr Kai Pata from Tallinn University served as one pre-examiner and Professor Vello Kukk from Tallinn University of Technology as one opponent. Dr Kybartaitė is from Kaunas, Lithuania, and after receiving her doctoral degree at Tampere she returned to Kaunas.

I was also glad to join other projects directed by colleagues from the Baltic States. One of these was the DASPTOOL project “Development of tools for direct digital alias-free processing of RF and microwave signals with demonstrations of their application potential”. It was funded by the EU in 2004–2005 and directed by Dr Ivars Bilinskis from Riga. The members were from Tallinn, Tampere, Rostock and London.

I have had the pleasure to be invited to the International Advisory Board of The Centre for Integrated Electronic Systems and Biomedical Engineering, CEBE, at Tallinn University of Technology (www.cebe.ttu.ee/). The ambition of CEBE is to become the leading

Estonian centre responsible for R&D in the areas of electronic components, systems and computer and bio-medical engineering.

For small countries like all the Baltic States as well as for Finland, internationalization is extremely important. All these countries have their own language, and keeping it as the only language of education and working would isolate these countries into small islands in the international community. Therefore it is essential to have English as a teaching and working language.

It has been a great pleasure to me to find that all the Baltic States have during the past 20 years been strongly oriented internationally and that cooperation between Finland and them has been fruitful for all of us. I wish continuous success to the Estonian Society for Bio-medical Engineering and Medical Physics.

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Glad participants of a workgroup during the International Advisory Board of the Estonian centre of excellence CEBE (Centre for Integrated Electronic Systems and Biomedical Engineering) meeting.