

PREFACE

The Baltic Sea catchment area has approximately 1.8 million km² and encompasses 14 countries of which, 9 have borders to the Baltic Sea. By the end of the 1990's, big gaps existed in terms of economic development among countries in the region. Nevertheless, a strong feeling of historical connection established during hundreds of years demanded action to reduce this gap. During the last ten years (1997-2007), these differences have been smothered out and the distances shortened mainly thanks to the development of new communication systems. In 1997 when City of Kalmar celebrated the 600th anniversary of the Union between the Nordic countries and the first Kalmar ECO-TECH Conference was organized, one of the main goals of the University of Kalmar-HiK in Sweden was to promote research and education cooperation among the countries around the Baltic Sea towards sustainability. The strategy established by HiK to reach this goal was through close cooperation with trade and industry; Kalmar ECO-TECH embraced both goal and strategy. Since then, Kalmar ECO-TECH has been held every second year. Ten years passed by and we might have the feeling that we have not done enough. Can we ensure that the pollution load to air, soil and water is decreasing? If not, what can we do better in the future? How can we improve our message to the new generation and recruit youngsters to become environmental engineers and environmental scientists that will do better in the future?

The main objective of the Kalmar ECO-TECH through the years has been to promote cooperation between the academia, trade and industry in the Baltic region and expand clean technology by engaging companies, industries, city engineers and administrators. The main goal has been to solve the existing environmental problems through technological solutions but also through new way of thinking, producing and consuming. It has been more and more obvious that the environmental issues have risen from local through regional to global concern. Pollution has more and more transboundary nature and affect everyone. As a consequence, Kalmar ECO-TECH' themes have changed during the years (**Figure 1**). Particularly since 2005, the Conference has been opened to not only the Baltic region but to the whole world. During the last two years the global warming and CO₂ emissions have been a hot topic not only among scientists but also among politicians and the society as a whole. During ECO-TECH' 07 special attention will be devoted to gaseous emissions related to climate changes and renewable energy from waste. **Table 1** shows some events connected to Kalmar ECO-TECH with the participation of the University of Kalmar. One activity worth to be highlighted is the Youth Environmental Conference ECOBALTICA held in Saint Petersburg every two years since 1996 in cooperation with the Assembly of Young Scientists of St. Petersburg, State Committee on Higher Education of the Russian Federation, the City Administration of St. Petersburg, St. Petersburg State Technical University, Russia. This conference is devoted to youngsters by opening possibilities for undergraduate and graduate students from the countries in the Baltic Region to present their theses and academic projects, to meet senior researchers and representatives from trade and industry and develop business and academic skills.

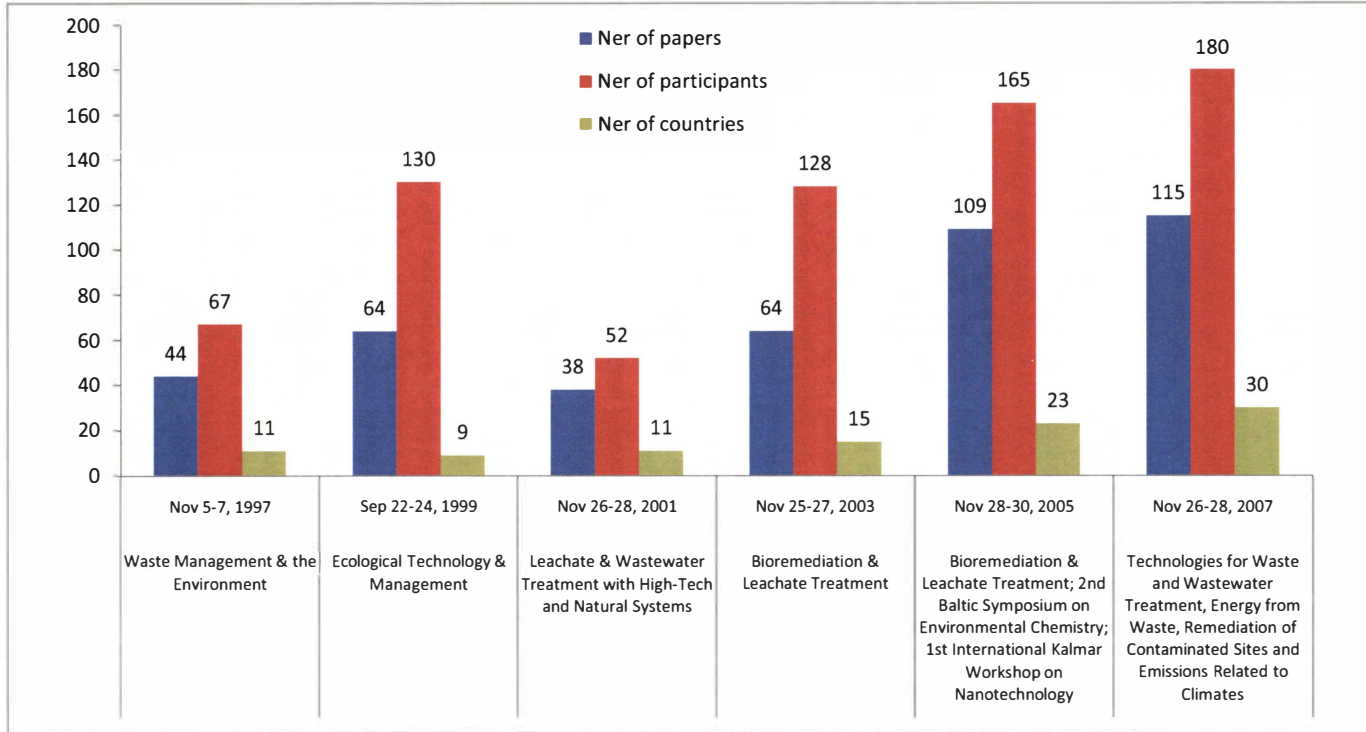


Figure 1. Kalmar ECO-TECH' 1997, 1999, 2001, 2003, 2005 and 2007. Themes highlighted and number of papers, participants and countries.

Table 1. Events organized during the period of 1996-2006 related to the sustainable development in the Baltic Sea Region.

Year	Activity	Main institutions and persons involved
1996	The idea about Kalmar ECO-TECH arises	Åke Erlandsson AB Gustaf Kähr and William Hogland University of Kalmar
1997	The 1 st Kalmar ECO-TECH was organized, to be held every second year in Kalmar	Head of Department of Technology, Göran Borgö and William Hogland, University of Kalmar
1998	Cooperation agreement-International Youth Environmental Conference ECOBALTICA to be held every second year in St. Petersburg, Russia	William Hogland University of Kalmar and Vasilii Rud St. Petersburg State Technical University, Russia
5-7 Jun, 1998	The Ecological Symposium, Gdansk, Oruma, Poland	Piotr Kowalic
22-26 Jun, 1998	The Youth Environmental Conference ECOBALTICA '98, 22-26 June 1998, St. Petersburg, Russia	Vaslii Rud and William Hogland. State Committee on Higher Education of the Russian Federation, the City Administration of St. Petersburg, St. Petersburg State Technical University, Russia
1998	Cooperation agreement between Kalmar University and St. Petersburg State Technical University (renewed since then)	Vice Chancellor Örn Taube, Professor William Hogland, Vaslii Rud St. Petersburg State Technical University
2-20 Nov, 1998 11-17 Apr, 1999	Advanced International Training Programme, Sida Course in "Solid Waste Management in Eastern Europe": Part 1 in Stockholm, SWECO, Sweden; Part 2 in Yalta, Ukraine	SWECO, Stockholm
26-29 Nov, 1998	The 5 th Danish-Polish Workshop on "Biofuels", Ecological Education Center, Starbienino, Poland	Piotr Kowalic the Technical University of Gdansk, Poland, Roskilde University Centre, Denmark and Free University of Berlin, Germany
2-27 Aug, 1999	International Course Agenda 21: Planning and Management for Sustainability in the Baltic Sea Region	University of Kalmar
2-5 Dec, 1999	The 6 th Danish-Polish Workshop on "Biomass for Energy", Starbienino, Poland	Technical University of Gdansk, Poland, Roskilde University Centre, Denmark, Free University of Berlin, Germany, Piotr Kowalic, William Hogland
14-15 Dec, 1999	Seminar on "New Environmental Technology for Processing Landfill Leachate", Šiauliai, Lithuania	Dr Lennart Mårtensson, University of Kristianstad, Sweden
25-29 Jun, 2000	The 1 st International Workshop of the Baltic Test Team: Global International Waters Assessment-GIWA UNEP/GEF	GIWA UNEP/GEF, University of Kalmar, Marcia Marques and William Hogland
26-30 Jun, 2000	The Youth Environmental Conference ECOBALTICA '00, St. Petersburg Russia	Vaslii Rud, International Director and co-organizer William Hogland; State Committee on Higher Education of the Russian Federation, the City Administration of St. Petersburg, St. Petersburg State Technical University, St. Petersburg, Russia
12-16 Aug, 2000	The 2 nd International Workshop of the Baltic Test Team: International Global International Waters Assessment-GIWA UNEP/GEF	GIWA UNEP/GEF, University of Kalmar, Marcia Marques and William Hogland
7-10 Dec, 2000	the 7 th Danish-Polish Workshop on "Biomass for Energy, Starbienino, Poland	Technical University of Gdansk, Poland, Roskilde University Centre, Denmark and Free University of Berlin, Germany, Piotr Kowalic, William Hogland
18-20 Dec 2000	The 3 rd International Workshop of the Baltic Test Team: Global International Waters Assessment-GIWA UNEP/GEF	GIWA UNEP/GEF together with Professor William Hogland and Marcia Marques
17-18 Sep, 2001	The First International Symposium: Environmental Problems in the Baltic Region States, Environmental Friendly Treatment Technology for Waste Water in the Baltic Sea Region, Šiauliai, Lithuania	Dr Lennart Mårtensson University of Kristianstad, Sweden
26-29 Sep, 2001	The First Baltic Symposium on Environmental Chemistry	Professor Toomas Tenno, University of Tartu, Estonia

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21-25 Oct, 2002	The Youth Environmental Conference ECOBALTICA 02, St. Petersburg	Vaslii Rud, International Director and William Hogland; State Committee on Higher Education of the Russian Federation, the City Administration of St. Petersburg, St. Petersburg State Technical University, St. Petersburg, Russia
22 Oct, 2002	Sustainable Water Treatment and Water Quality Control Systems: Leachate Treatment from MSW and Industry Landfills; The 2 nd Workshop "Sustainable Leachate and Waste Water Management using High-tech and Natural Systems"	William Hogland and St. Petersburg State Polytechnical University (SPbSPU), St Petersburg, Russia
11-13 Apr, 2003	Decision Making in Water Management Network	Institute of Ecology, Tallinn, Estonia
12-15 Jun, 2003	The 8 th Danish-Polish Workshop on Biomass for Energy, Starbienino, Poland	Piotr Kowalic, The Technical University of Gdansk, Poland, Roskilde University Centre, Denmark and Free University of Berlin, Germany
28 Nov, 2003	The gender perspective "Women in Technology with focus on Bioremediation and Leachate Treatment in the Baltic Region"	William Hogland, University of Kalmar
16-18 Jun, 2004	The 5 th Youth Environmental Forum ECOBALTICA 2004, St. Petersburg, Russia	Vaslii Rud, International Director and William Hogland; State Committee on Higher Education of the Russian Federation, the City Administration of St. Petersburg, St. Petersburg State Technical University, St. Petersburg, Russia.
22-24 Sep, 2004	International Conference "Strengthening Academic Cooperation in Environmental Issues in the Nordic and Baltic Sea Region, Uppsala, Sweden	St. Petersburg State University for Engineering and Economics (ENGECON) and Swedish University of Agricultural Sciences (SLU)
6-10 Oct, 2004	International PhD course Solid Waste Management in Nordic Countries and St. Petersburg.	Esa Marttila and Mika Horttanainen, Lappeenranta University in Finland, Vadim Chekalin, St. Petersburg State University of Engineering and Economics, Russia and William Hogland University of Kalmar
4-5 Oct, 2005	Seminar and Study Visit in Kalmar for the Young Scientist Delegation from St. Petersburg Polytechnic University, Russia	William Hogland for the Royal Swedish Academy of Engineering Sciences
2002-2004	The Baltic Sea Network for Leachate and Wastewater Treatment with emphasis on High-tech in Combination with Nature Based Systems	William Hogland, University of Kalmar and Felix Stolberg at the Kharkov State Academy of Municipal Economy, Ukraine
2004-2007	The Baltic Sea Region-Ukrainian Network on Bioremediation and Treatment of Leachate from Landfills with Emphasis on Persistent Organic Compounds	William Hogland, University of Kalmar and Felix Stolberg at the Kharkov State Academy of Municipal Economy, Ukraine
2004	Education cooperation on Master Course in Environmental Engineering with researchers/teachers at the Danish Technical University in Denmark, Telemark College in Norway; University of Kalmar	Rune Bakke, Telemark University College in Norway
28-30 Nov, 2005	The 2 nd Baltic Symposium on Environmental Chemistry; the First Kalmar Nanotechnology Workshop November 28-30, 2005	University of Kalmar and The European Association for Chemical and Molecular Sciences, the Swedish Chemical Society and the Trans Regional Network NanoGrowth
26-28 Jun, 2006	The 6 th International Youth Environmental Forum of Baltic Region Countries ECOBALTICA 2006, St. Petersburg, Russia.	Vaslii Rud, International Director, William Hogland; State Committee on Higher Education of the Russian Federation, the City Adm. of St. Petersburg, St. Petersburg State Technical University, Russia
28 Jun, 2006	Establishment of the "Baltic Scientific Ecological Centre"	Professor William Hogland, University of Kalmar
21-25 Aug, 2006	SUSBUS project Workshop: European Project _ JEP-23100-2002 "Developing Sustainable Business Patterns in Ukraine"	Felix Stolberg Kharkov State Academy of Municipal Economy, Ukraine; Pekka Peura, Levon Institute, Finland, William Hogland and Marcia Marques, University of Kalmar

During these 10 years of Kalmar ECO-TECH, many influential persons have contributed to make the conference possible. I would like to acknowledge Dr Vaslii Rud, St. Petersburg State Technical University that has cooperated organizing both Kalmar ECO-TECH in Kalmar and ECOBALTICA in St Petersburg. The idea behind Kalmar ECO-TECH was originally formulated together with Åke Erlandsson, Environmental Manager at AB Gustaf Kährs in Nybro and the first Conference in 1997 was possible thanks to the support and enthusiasm of Göran Borgö and Göran Johansson, both former head of the Department of Technology, University of Kalmar. The first conference also received valuable support from the former Mayor of Kalmar Anders Engström and, during the latest conferences, by his successor, Mayor Kjell Henriksson.

The Region Council in the county of Kalmar, represented by Håkan Brynielsson, Lennart O. Werner and their colleagues has also embraced the idea behind the Conference, as well as Jan Hagel, Omvärldskommunikation and the Kalmar County Governor Sven Lindgren. During the years, Hans Dahl, Kalmar Vatten och Renhållning and Lars Kylefors, Vatten och Samhällsteknik as well as Ragn Sells plus the Swedish Association for Waste Management have all worked actively to support the Conference. Bernth Norén at the XL-laboratory, University of Kalmar has been a big help with many good ideas to improve the content of the program.

Without the financial support of the following institutions, Kalmar ECO-TECH should not be possible: The Swedish Institute, the Municipality of Kalmar, the Regional Council in the County of Kalmar, the Swedish Association of Waste Management, Flexus Balasystem, Ragn-Sells, the Ragnar Sellberg Foundation, Kalmar Vatten, Kalmarsunds Regionens Renhållare, Vatten och Samhällsteknik, the University of Kalmar, the Baltic Business School, The Royal Academy of Engineering and Science-IVA, Sida, KRSL, AB Gustaf Kähr.

On behalf of the University of Kalmar, I would like to thank all participants from different countries who during the years have contributed to this conference, by been active all these years, with new research ideas and wiliness to share experience and knowledge with colleagues.

This year many thanks go to Eva Vinrot, the administrative secretary of the conference and the staff of the Environmental Engineering Research Group Marcia Marques, Fabio Kaczala, Jeanger Juanga and Darlan Pereira, as well as the members of the program committee for their efforts to make a memorable 10 year celebration of Kalmar ECO-TECH.

In 2007 the University of Kalmar celebrates its 30th year Anniversary. Kalmar ECO-TECH' 07 is our humble tribute to it.

William Hogland

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