

PREFACE

In 1997, the City of Kalmar celebrated the 600 years Anniversary of the Union between the Nordic countries. The same year, the first Kalmar ECO-TECH conference took place. Since then, the conference has been held every second year. The following themes have been highlighted during these years:

- 1) Kalmar ECO-TECH '97: Waste Management and the Environment
- 2) Kalmar ECO-TECH '99: Ecological Technology and Management
- 3) Kalmar ECO-TECH '01: Leachate and Waste Water Treatment with High-Tech and Natural Systems
- 4) Kalmar ECO-TECH '03: Bioremediation and Leachate Treatment and this year,
- 5) Kalmar ECO-TECH '05: International Conference on Waste to Energy, Bioremediation and Leachate Treatment and the Second Baltic Symposium on Environmental Chemistry together with and The First International Kalmar Workshop on Nanotechnology

All conferences have focused on the establishment of cooperation between companies and institutions in the Nordic countries and different countries in the Baltic Sea region. The production of papers that have been presented at the conferences and the participation rate show the following statistics:

- 1) In 1997, 44 papers were presented and totally 67 people from eleven countries participated
- 2) In 1999, 64 papers were presented and totally 130 people from nine countries participated
- 3) In 2001, 38 papers were presented and totally 52 people from eleven countries participated
- 4) In 2003, 64 papers were presented and totally 128 people from fifteen countries participated
- 5) In 2005, 109 papers will be presented and totally 165 people from 23 countries will participate

The idea behind Kalmar ECO-TECH during discussions with an old friend from my years of study in Lund, Åke Erlandsson. Today he works at AB Gustaf Kährs in Nybro. These ideas were further developed and realized in cooperation with Göran Borgö, today active at IUC (Industrial Development Centre). The objective was to increase, and promote the enthusiasm for, the cooperation between the University on one hand and trade and industry on the other, and also initiate technical and practical research. Thereby, the major objectives were to solve existing problems in the society of today and promote the quality of life for people living today as well as for the generations to follow.

The focus on the Baltic Sea Region was based on the policy of the University of Kalmar. It is also natural to feel concerned about the sensitive environment of the Baltic region. During the first conference, support along these lines was given by, at that time, the Mayor of Kalmar Anders Engström and, during later conferences, by his successor, Mayor Kjell Henriksson.

Kalmar ECO-TECH '05 and
The Second Baltic Symposium on Environmental Chemistry
KALMAR, SWEDEN, November 28-30, 2005

As an outcome of the first conference, cooperation with Dr Vasilli Rud' was established. This ended up in a cooperation for the arrangement of the *International Youth Environmental Conference Eco Baltica* which is held every second year and celebrates its ten years anniversary next year. A cooperation agreement was signed with St Petersburg State Polytechnic University, Russia. A close cooperation was also initiated with Professor Toomas Tenno, University of Tartu, Estonia.

The contents of the goal to establish cooperation between researchers and teachers, engineers at companies/industries, city engineers and administrators dealing with environmental issues was further developed. The Region Council in the Kalmar County, represented by Håkan Brynielsson and his colleagues, has also supported the idea. During recent years, also Hans Dahl, Kalmar Vatten och Renhållning and Lars Kylefors, Vatten och Samhällsteknik, as well as Ragn Sells plus the Swedish Association of Waste Management have actively supported these ambitions.

Professor Vadim Chekalin, St. Petersburg State University of Engineering and Economics, has initiated a cooperation agreement with the University of Kalmar. A cooperation has been initiated under leadership of Professor Esa Marttila and Dr Mika Horttaniainen, Lappeenranta University, Finland. Also, a PhD course has been arranged in close co-operation between the Lappeenranta University, St Petersburg State University of Engineering and Economics and the University of Kalmar.

During all these years, Bernth Norén at the XL-laboratory at the University of Kalmar has been a big help. He has given many good ideas to improve the contents of the programme.

An important part in the cooperation has been *The Baltic Sea Network for Leachate and Wastewater Treatment with Emphasis on High-tech in Combination with Nature Based Systems*. This can be seen as a direct spin off-effect of the Conference. It has led to the cooperation with Professor Felix Stolberg at Kharkov State Academy of Municipal Economy where research/teaching/company projects are under establishment under auspices of representatives from Sweden, Ukraine and Finland represented by the University of Vaasa, Levon Insitute. Also, some twenty companies in the county of Kalmar are involved.

The gender perspective was included when the seminar on *Women in Technology with Focus on Bioremediation and Leachate Treatment in the Baltic Sea Region* took place during Kalmar ECO-TECH '03.

Among the Nordic countries, education cooperation has been established together with professor Rune Bakke, Telemark University College in Norway and researchers/teachers at the Danish Technical University in Denmark. As a result, during this conference, education material and videos for a Master Course in Environmental Engineering will be produced.

This time environmental engineers and environmental chemists are connected in the conference Kalmar ECO-TECH '05 by the involvement of the European Association for Chemical and Molecular Sciences, the Swedish Chemical Society and the transregional network NanoGrowth. This I consider to be an investment for the future. *The Baltic Sea Region-Ukrainian Network on*

Bioremediation and Treatment of Leachate from Landfills with Emphasis on Persistent Organic Compounds will now start up and hopefully generate new and prosperous cooperation projects.

On behalf of the University of Kalmar, I would like to thank all those who have contributed to the Proceedings of the Conference. I would like to thank the sponsors and supporting institutions. Without their help, the conference had not been possible to realize. These sponsors and supporters are: the Swedish Institute, the Municipality of Kalmar, the Regional Council in Kalmar County of, the Swedish Association of Waste Management, Flexus Balasystem, Ragn-Sells, the Ragnar Sellberg Foundation, Kalmar Vatten och Renhållning, Vatten och Samhällsteknik, SYSAV, Norba, the University of Kalmar, the Baltic Business School, IVA, The Swedish Research Council, the Swedish Nano Growth Initiative and the Swedish Chemical Society.

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