

# Conference Reports

## EnviroInfo 2007

### Environmental Informatics and Systems Research

Warsaw, Poland, September 12–14, 2007

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The EnviroInfo 2007 was held at the the Staszic Palace, in Warsaw, the seat of the Polish Academy of Sciences from September 12-14, 2007. The conference was organized by the **Systems Research Institute, Polish Academy of Sciences, Warsaw (Prof. Dr. Olgierd Hryniewicz (Chair), Polish Academy of Sciences (IBS PAN), Poland, Prof. Dr. Jan Studzinski (Co-Chair), (IBS PAN), Poland, and Dr. Kristina Voigt (Co-Chair), GSF– National Research Centre for Environment and Health (GSF), Germany).**

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### Background of EnviroInfo conferences

In 1987 a Working Group (later Technical Committee) on 'Informatics for Environmental Protection' was founded within the German 'Gesellschaft für Informatik' (GI, Society of Informatics) in an effort to establish continuity and improvement in communication among the participants and to broaden the community. The Technical Committee has been organizing the annual Enviroinfo conference among other activities ever since. These EnviroInfo conferences have been attended by more and more participants over the years. What began as an annual symposium held in German, rapidly developed into a pan-European international conference.

The EnviroInfo was held in several countries, e.g. Germany, Switzerland, Austria, France, and Czech Republic, etc. and in Poland in 2007 (Fig. 1).

More than 3,000 papers by 7,500 authors have been published in proceedings volumes since 1986.

Each EnviroInfo Conference has a special orientation which is underlined by the sub-title of the conference. The main focus of the Warsaw Conference was **Environmental Informatics and Systems Research**, the main research topic of the organizer Systems Research Institute of the Polish Academy of Science.

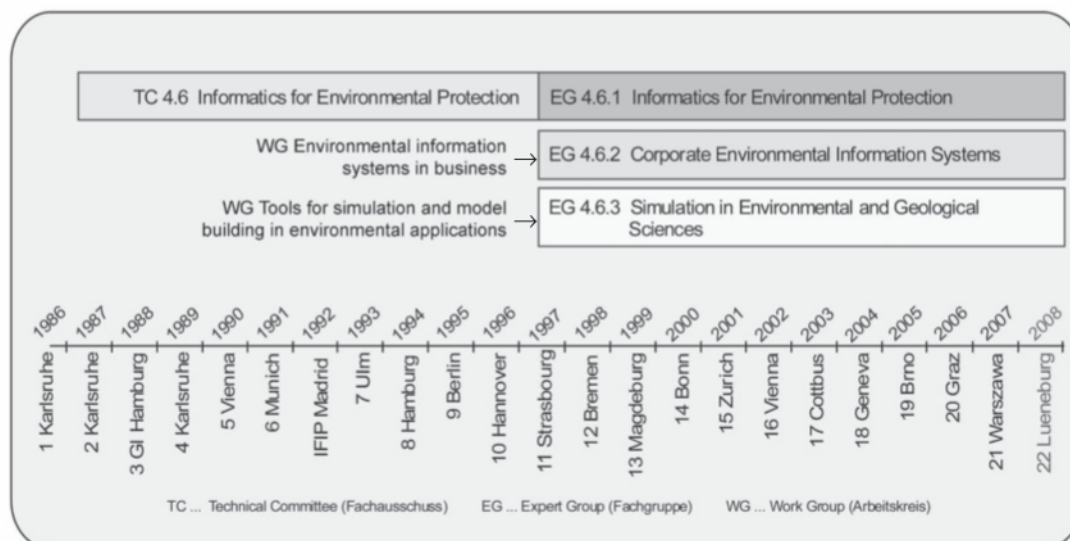


Fig. 1: Development and places of EnviroInfo Conferences 1986–2008

### Session topics presented in Warsaw

- Knowledge and Information Management;
- Systems Analysis in Environmental Engineering and Environmental Informatics;
- Decisions Support Information Systems for Optimization and Control of Environmental Processes;
- Environmental Engineering and Environmental Informatics with Respect to Health Protection;
- Emergencies and Disaster Management;
- e-Society and Environmental Protection;
- Mathematical Modeling, Computer Simulation Methods and Algorithms;
- Trends in Environmental Information and Geographical Information Systems;
- Monitoring, Transmission and Visualization Systems;
- Economical Aspects Related to Environmental Informatics;
- Application of Environmental Informatics: Practical Cases;
- Risk Assessment and Risk Management.

This gives a good overview on the main research and development which is currently under way in the important interdisciplinary field of Environmental Informatics.

### Workshops presented in Warsaw

Besides these regular sessions, a couple of thematic workshops were offered:

1. Which 'System' Do We Mean? – The Challenge to Bridge Multidisciplinarity in Environmental Informatics (Chair: Charlotte Kaempf, Germany);
2. Environmental Information for Public (Chair: Leo Wanner und Daniel Nicklass, Germany);
3. Seamless Access to Environmental Information in the EU – Building an Integrated Information Space for the Environment (Chairs: Thomas Pick, Werner Pillman, Werner Geiger, Germany);
4. Ranking Methods with the Emphasis on Partially Ordered Sets (Chair: Rainer Brüggemann, Germany);
5. Integrated Modeling of Air Pollution for Poland (Chair: Piotr Holnicki, Poland);
6. SEDINE – the Mappings (Chair: Herbert Schentz, Germany).

A special event was the **EcoInforma Symposium** organized and chaired by Margaret MacDonell (USA). The title of this Symposium was 'Integrating Information for Health and Environmental Protection', in which mainly speakers from the USA presented their research results.

### Plenaries presented in Warsaw

The plenary talks came from experts from European countries and the United States and covered highlights in environmental research with respect to computer science. The topics of these plenary talks and their speakers were:

1. Applications of Systems Analysis in Solving Problems Related to Environment (Olgierd Hryniewicz and Zbigniew Nahorski, Poland);
2. Policy of EC with Respect to Environmental Informatics (Marta Nagy-Rothengass und Michel Schouppe, EU);
3. On the Importance of Systems and ICT Research for Sustainable Development of Poland, Europe and World in Digital Era (Marek Haliniak, Poland);
4. From Arhus to Inspire: Putting Environmental Information on the Map (Thomas Pick, Germany);
5. Computer Modeling of large Systems related to Environmental Problems (Marek Makowski, IIASA);
6. CO<sub>2</sub> Reduction with ICT: Prospects and Barriers (Lorenz Hilty, Swiss);
7. Delivering Environmental Knowledge: A Semantic Approach (Andrea Rizzoli, Ioannis N. Athanasiadis und Ferdinando Villa, Swiss);
8. Air Pollution and Climate Modeling (Katarzyna Juda-Rezler, Poland);
9. Role of Informatics in Cumulative Risk Analysis for Health and Environmental Protection (Margaret MacDonell, USA).

### Conference statistics

The approximately 160 participants came from 24 countries. Three quarter of them were from Germany (54), Poland (27), Austria (12) and the United States (10). The countries Belgium, France, Italy, Spain and Switzerland were represented by 3 to 5 participants. The European countries (Czech Republic, Denmark, Finland, Greece, The Netherlands, Ireland, Croatia, Serbia, Slovenia and United Kingdom) as well as 5 non-European countries (Brazil, Ghana, Japan, Cameroon and Taiwan) sent 1 to 2 participants.

At the EnvirolInfo 2007, 136 contributions were presented, that is 9 Plenary talks (7% of the total), 77 Session-contributions (57% of the total) und 50 Workshop-contributions (36% of the total).

All presented papers are published in two separate conference volumes by Shaker Verlag in Aachen, Germany (ISBN: 978-3-8322-6397-3).

**The EnvirolInfo 2008 will be held in Lueneburg, Germany, September 10–12<sup>th</sup>, 2008 ([www.envirolinfo2008.org](http://www.envirolinfo2008.org))**

### EnvirolInfo 2008: Environmental Informatics and Industrial Ecology September 10–12, 2008, Leuphana University of Lüneburg, Germany

Modern societies establish socio-economic or industrial metabolisms to supply the need of their inhabitants. In this perspective sustainability can be taken as an overall concept to maintain the socio-economic metabolism in the long run, e.g., sustainable use of resources and energy, impacts of products and processes on climate, climate change impacts on value chains, etc.

To monitor actual condition and development of metabolisms with aid of metabolic key indicators, various complementary modeling approaches are required, e.g. continuous and discrete event simulation, material flow analysis, often based on spatial data, life cycle assessment, environmental risk management, environmental management accounting. The approaches demand sophisticated data processing

techniques and computer-based information systems, for instance process simulation tools, computer-based environmental accounting systems, geographical information systems, visualization tools, reporting modules, as much as possible integrated into a consistent modeling framework.

The EnvirolInfo 2008 conference aims to facilitate exchange of experience and knowhow between academics, and professionals in this research field. It will focus on 'environmental informatics and industrial ecology'. This indicates that the conference also should make a contribution to bring together the different research communities and to stimulate inter- and transdisciplinary collaboration and research projects in this field. The conference language is English.

**29.02.2008:** Submission of extended abstracts • **10.04.2008:** Notification of acceptance  
**31.05.2008:** Final version of the papers • **30.06.2008:** Early payment deadline