

A Very Warm Welcome to Dortmund

With the start of ENBIS-7 in Dortmund, the outgoing president Ron S. Kenett is looking at the ENBIS Past, Present and Future.

It is a great pleasure for me to greet the participants of the ENBIS-7 conference in Dortmund.



Friedensplatz in Dortmund – the City Hall
(© J.M. Skop, www.do-foto.de)

As always, the annual ENBIS conference is an opportunity to reflect on the past, discuss the present, and make plans for the future. I'm very happy to report that the 2006-2007 Executive Committee (Ron S. Kenett, Andrea Ahlemeyer-Stubbe, Stefano Barone, Birger Madsen, Irena Ograjenšek and Fabrizio Ruggeri) was able to push forward many initiatives to implement the vision and mission of ENBIS. In some cases we were more successful than others; in all cases we gained invaluable experience.

I'm pleased to note that in September 2007, ENBIS has exactly 1300 members from 63 countries. The member number marks a 10% growth from the last year.

In the period 2006-2007 ENBIS organised and/or sponsored more events than ever before. Apart from the ENBIS-7 conference, the list also includes:

- SADA'07, the International Conference on Applied Statistics for Development in Africa which took place in Cotonou (Benin) from 26th February to 2nd March 2007.
- The joint ENBIS-DEINDE conference which took place in Torino (Italy) from April 11th to 13th.
- The annual meeting of the Israel Statistical Association which took place in Tel Aviv (Israel) on May 15th.
- The QMOD conference which took

place in Helsingborg (Sweden) from June 18th to 20th.

- The MMR (Mathematical Methods in Reliability) conference which took place in Glasgow (UK) from July 1st to 4th.
- The ISBIS conference which took place in Ponta Delgada (Portugal) from August 18th to 20th.

At these events our members either run workshops, organized sessions, or presented invited papers.

In order to reinforce our presence in the statistical community, we organized a number of special issues of the leading journals in the field of business and industrial statistics (ASMBI, MCAP, QE, QREI and QTQM). Both QREI in QE now offer free electronic access of the ENBIS special issues to all ENBIS members – a substantial benefit never offered before. In addition, we launched a unique service to the ENBIS membership: the *ENBIS Academic Publications Panel*, and continued with publishing our quarterly newsletter.

It makes me proud to say that the organizers of the Dortmund conference set new standards of excellence with outstanding invited speakers and a record number of sponsors. ENBIS-7 promises to be the best ENBIS conference ever and I cordially invite all of you to the ENBIS Assembly to discuss what we achieved, what we plan to achieve, and where we are heading.

The imminent future of ENBIS lies in the hands of the incoming Executive Committee headed by Andrea Ahlemeyer-Stubbe. But some ground work has already been done. The 2008 annual ENBIS conference will be held in Athens (Greece). While I hope to see you there, I'm all set to enjoy the conference in Dortmund.

Yours sincerely,
Ron S. Kenett

ENBIS Academic Publications Panel

You are cordially invited to make use of the *ENBIS Academic Publications Panel*.

The panel was established with the goal of helping ENBIS members who want to publish in the academic journals with feedback and directions. The list of our highly esteemed panellists includes (in alphabetical order):

- Philippe Castagliola, associate editor of *Quality Technology and Quantitative Management*;
- Shirley Coleman, associate editor of *QTQM* and former associate editor of *Journal of the Royal Statistical Society (Series A)*;
- Larry Freedman, editor of *Biometrics*;
- Paolo Giudici, associate editor of *Applied Stochastic Models for Business and Industry* and guest editor of *Methodology and Computing in Applied Probability*;
- Rainer Goeb, associate editor of *Journal of Quality Technology*;
- Peter Goos, associate editor of *Journal of Quality Technology* and *Journal of the Royal Statistical Society (Series C)*;
- Ron S. Kenett, editor in chief of *QTQM* and associate editor of *Journal of the Royal Statistical Society (Series A)*;
- Fabrizio Ruggeri, editor of *Applied Stochastic Models for Business and Industry* and *Bayesian Analysis*;
- David Steinberg, editor of *Technometrics*;
- Martina Vandebroek, guest editor of *Quality and Reliability Engineering International*.

If interested in obtaining help from our highly esteemed panelists, please contact Irena Ograjenšek, the Managing Director of the *ENBIS Academic Publications Panel*, per e-mail (irena.ograjensek@ef.uni-lj.si).

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ENBIS-7: Box Medal for Poul Thyregod

The Box Medal will be awarded to Poul Thyregod at the 2007 ENBIS conference in Dortmund.

The Box Medal is named after George Box and is awarded to recognise an extraordinary statistician who has contributed to development and application of statistical methods in European business and industry.

This year's recipient is Poul Thyregod, Professor of Industrial Statistics at the Technical University of Denmark, President of ENBIS in 2003-2004, a keynote speaker at ENBIS-3 in Rimini (Italy), and a Conference Chair of ENBIS-4 in Copenhagen (Denmark).



Poul was a student of Anders Hald, a Professor Emeritus of the Institute for Mathematical Sciences at the University of Copenhagen. Hald authored a landmark book on *Statistical Theory of Sampling Inspection by Attributes* (Academic Press, 1981) that includes Poul's earlier work on Bayesian Sampling (Thyregod, P.: Bayesian single sampling acceptance plans for finite lot sizes. *Journal. Roy. Statist. Soc.*, B 36, 1974 pp. 305-319).

Following the work of Poul is a fascinating journey into the application of statistics. At ENBIS-3 in Rimini (Italy), he presented the now famous ice cream example showing how understanding the context enables children to provide critical insights into data analysis. The data consists of daily ice cream sales in Denmark. The question is what days

are Sundays. Danish kids know that on Sundays they go out with their parents to buy ice creams. When in possession of this information, associating peak sales with Sundays is trivial (see Kenett, R. and Thyregod, P.: "Aspects of statistical consulting not taught by academia", *Statistica Neerlandica*, 60, 3, pp. 396-412, August 2006).

Poul contributed to our profession in many ways. The list of his publications is very long and includes articles in journals such as *International Statistical Review*, *Journal of Applied Statistics*, *Journal de Physique*, *Journal of Chemometrics*, *Journal of Quality Technology*, *Journal of the Royal Statistical Society (Series B)*, *Journal of Statistical Computation and Simulation*, *Quality and Reliability Engineering International*, *Scandinavian Journal of Statistics*, and *Technometrics*.

The ability to work with engineers and scientists, to be part of the discovery process, and to be able to communicate so clearly what statistics is all about, is clearly a gift. Poul has that gift. His career is a prime example demonstrating how statistics develops by integrating theory and applications. We are all very proud to have him as our 2007 Box Medalist and to have had him as our president.

ENBIS-8 will take place in Athens (Greece) from September 22nd to 24th 2008. For more information see the next issue of *ENBIS News* and visit the ENBIS webpage:

www.enbis.org

Other Award Recipients at ENBIS-7

Apart from Poul Thyregod, two other advocates of the use of statistical methods in the European business and industry will be honoured in Dortmund.

Andre Dias Alves da Silva of *Kraft Foods* (Brazil) will receive the Best Manager Award. Andre has been promoting Six Sigma for many years and is currently pushing for its implementation in 36 *Kraft Foods* plants throughout Europe in his role of the Six Sigma Rollout Manager.

Nadine Henkenjohann of *INFORMA Unternehmensberatung GmbH* from Pforzheim (Germany) will be the recipient of the Young Statistician Award. Nadine has been successfully combining the roles of an academic researcher and an industrial consultant in the field of statistics, at the moment focusing primarily on advanced predictive modelling.

Keynote Addresses at ENBIS-7

The keynote speakers at the ENBIS conference in Dortmund are:

- Nadine Henkenjohann (INFORMA Unternehmensberatung GmbH; on predictions of customer behaviour),
- Bradley Jones (SAS, on design of experiments),
- Susan Lewis (University of Southampton; on design of experiments),
- Petra Perner (Institut für Bildverarbeitung und Angewandte Informatik; on case-based reasoning),
- Karsten Röpke (Ingenieurgesellschaft Auto und Verkehr; on the latest developments in design of experiments for engine development),
- Anja Schleppe (Kraft Foods Europe; on six sigma implementation),
- Stefan Steiner (University of Waterloo; on variation reduction).

ENBIS and EQR

Ron S. Kenett reports on the Wiley's *Encyclopedia of Statistics in Quality and Reliability (EQR)*.

Past President, Fabrizio Ruggeri, and the outgoing President, Ron S. Kenett, together with Fred Faltin, are Editors in Chief of the forthcoming Wiley's *Encyclopedia of Statistics in Quality and Reliability*. This Encyclopedia has been designed to provide a comprehensive and integrated knowledge source for anyone having a theoretical or practical interest in applications of statistics to any of these or related fields.

The project started with Wiley contacting the leading researchers from all over the world to determine whether there was need for a major reference work in these two related fields. The answers were, in general, very positive, and the project started in earnest with the appointment of the Editors-in-Chief who were chosen for their wide range of experience across both academia and business. The next step was the identification of critical topical areas that would span the subject, and the search for outstanding experts in these fields who would commission papers in cooperation with the Editors-in-Chief. Twelve Section Editors were appointed:

- Mike Adams (University of Alabama, USA), *Process Control*.
- Connie Borrer (University of Illinois, USA), *Process Capability & Measurement Systems Analysis*.
- Jeroen de Mast (University of Amsterdam, the Netherlands), *Basics Statistics*.
- Blanton Godfrey (College of Textiles, USA) and Ramon Leon (University of Tennessee, USA), *Management of Quality & Business Statistics*.

- **Rainer Göb** (University of Wuerzburg, Germany), *Sampling*.
- **Tony Greenfield** (Greenfield Research, UK), *Health, Safety & Environmental Applications*.
- Tom Mazzuchi (George Washington University, USA), *Reliability: Life Distribution Modeling & Accelerated Testing*.
- Steven Rigdon (Southern Illinois University, USA), *System Reliability*.
- Refik Soyer (George Washington University, USA), *Reliability: Life Cycle & Warranty Cost Prediction*.
- **David Steinberg** (Tel Aviv University, Israel), *Design of Experiments & Robust Design*.
- Simon Wilson (Trinity College Dublin, Ireland), *Computationally Intensive Methods & Simulation*.
- Shelley Zacks (Binghamton University, USA), *Statistical and Stochastic Modelling*.

Those whose names are marked in bold are active ENBIS members. The Section Editors, in cooperation with the Editors-in-Chief, selected the key topics and commissioned leading authors to write authoritative articles on each. Over 500 entries have been written by some of the world's most prominent authors in their respective fields. Contributors include, among others, Poul Thyregod, our 2007 Box Medalist, Ronald Does, the ENBIS Founding Director, Alberto Luceno, Kerstin Vennman, Chris McCollin, Shirely Coleman, Alex Koning, and Irena Ograjšek. In many aspects, ENBIS has been a significant source of influence to this major reference work.

Bound proofs are on display at the ENBIS conference in Dortmund. More information is available online at <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0470018615.html>.

ENBIS-7 QREI Special Issue

Two eminent researchers were appointed as guest editors of the ENBIS-7 QREI special issue. They are Professor Joachim Kunert and Professor Claus Weihs from the University of Dortmund (Germany).

The pro-ENBIS Book

ENBIS and Wiley are working on the book entitled *Statistical Practice in Business and Industry*.

Statistical Practice in Business and Industry was originally conceived in the framework of *pro-ENBIS*, the European Commission funded *Fifth Framework* project in which many ENBIS members actively participated. Each of the *pro-ENBIS* work package leaders offered contribution, as did most of the other project partners and members. The book also features contributions from people who were not directly involved in *pro-ENBIS* but who are acknowledged experts and supporters of the ENBIS mission of promoting the application and understanding of statistical methods. The book will be a thorough overview of the state of the art in business and industrial statistics.

The editors of the book are Shirley Coleman, Dave Stewardson, Douglas Montgomery and Tony Greenfield. Almost all chapters are now with the publishers (Wiley) and production is on the way.

"This project started three years ago," said Tony Greenfield, "and members may be frustrated by the wait. But the project is very much alive and on track. The book will soon be ready and we are sure that members will be pleased with it."

Past Events

- The **ENBIS-DEINDE Conference** took place from 11th to 13th April, 2007, in Torino (Italy). It was attended by 63 participants from Italy, Germany, South Korea, Canada, US, France, Denmark, Turkey, UK, Belgium, Portugal, Austria, Spain, Holland, the Czech Republic and Israel. The conference topic of Physical versus Simulation Experiments attracted top experts in the field that made it a great event. The organization by Ennio Isaia and Alessandra Durio from the University of Torino that hosted the event, and Grazia Vicario from the Polytechnic of Torino was excellent. Thanks are also due to Professor Roberto Corradetti and the Diego de Castro Foundation for supporting the conference.
- On May 15th, 2007, Tony Greenfield and Ron S. Kenett run a **Clinical Trials Workshop** in the framework of the **Annual Meeting of the Israel Statistical Association** which took place in Tel Aviv (Israel).
- Shirley Coleman and Ron S. Kenett run the **Six Sigma in Health Care Workshop** for 21 participants in the framework of the **QMOD Conference** which took place in Helsingborg (Sweden) from 18th to 20th June, 2007.
- The ENBIS-organised **Case Study Workshop on Reliability** took place at the University of Strathclyde in Glasgow (UK) in the afternoon of July 1st, 2007, prior to the beginning of **MMR2007** (the conference on mathematical methods in reliability). 4 speakers and 15 participants (many of them students) engaged in a valuable exchange of insights and experiences.
- From August 18th to 20th, 2007, the ENBIS-sponsored **2007 ISBIS meeting** took place at the University of Azores (Portugal). In the framework of the invited **ENBIS session**, Irena Ograjenšek, Andrea Ahlemeyer-Stubbe and Fabrizio Ruggeri promoted the ENBIS ideas and presented papers on their work in the field of business and industrial statistics.

Upcoming Events

- The Drug Information Association (DIA) is organising a conference on **Statistical Methodology in Clinical R&D**. The conference will take place in Madrid (Spain) from October 17th to 19th, 2007. For more information contact Suzanne DeZilva (suzanne.dezilva@diaeurope.org).
- ASQ Statistics Division is organising the **51st Annual Fall Technical Conference** entitled *Statistics and Quality: Where Discovery Begins*. The conference will take place in Jacksonville (Florida, USA) from October 10th to 13th, 2007. For more information check the web at <http://www.asqstatdiv.org>.
- The University of Antwerp (Belgium) is hosting an **International conference on Design of Industrial Experiments** on January 14th and 15th, 2008. The list of speakers includes Blanton Godfrey, Peter Goos, Stuart Hunter, Bradley Jones, William Li, Dennis Lin, Doug Montgomery, Chris Nachtsheim, John Sall, David Steinberg and Kenny Ye. For more information check the web at <http://www.ua.ac.be/doc>.
- Statistical Institute at the Catholic University of Louvain (Belgium) is hosting **AGROSTAT 2008** focused on statistical methods for the food industry from January 23rd to 25th, 2008 (<http://www.stat.ucl.ac.be/Agrostat2008/>).
- The ISI and IASC- sponsored **International Conference on Computational Statistics (COMPSTAT 2008)** will take place in Porto (Portugal) from 24th to 29th August, 2008 (see <http://www.fep.up.pt/compstat08> for more details).

A Thumbnail of ENBIS Members @ ISBIS 2007



Member News

Stefano Barone of the University of Palermo won a Fulbright Research Grant to develop a research project at Georgia Tech (USA) in collaboration with Prof. Jeff Wu.

Young Statisticians' Corner

ABS07, the Applied Bayesian Statistics summer school organised in Italy since 2004, was held in Pavia in from September 3rd to 7th 2007. This year's topic was Bayesian Methods and Econometrics and the lecturer was Siddhartha Chib from the Washington University in St. Louis (USA). The purpose of this self-contained short course was to present the Bayesian inferential methods with applications to problems arising in econometrics. Participants in the course were exposed to the relevant Bayesian theory and computational techniques. The methods and applications were illustrated with real data, and where possible, instructions on coding the techniques in Winbugs and R were provided. More details can be found at www.mi.imati.cnr.it/conferences/abs07.html.

For information on the ABS08, please contact the School Co-Director, Fabrizio Ruggeri (fabrizio@mi.imati.cnr.it).

Visit the ASQ
Statistics Division webpage:
<http://www.asqstatdiv.org/documents/newsletters/Spring07StatDiv.pdf>

The newsletter of the Inter American Stats Institute (IASI) can be found online at

<http://www.indec.mecon.ar/iasi/iasi/bi73.pdf>.

Merging Statistics and Emotion

Stefano Barone and Pietro Tarantino share their experiences from the EU project “ENGAGE”.

On the March 19th, the final meeting of the EU-project “ENGAGE” took place in Tours (France). ENGAGE stands for *Engineering Emotional Design*. The project aimed at building a knowledge community in the area of affective engineering. It was carried out by a coordinated action of 21 partners from 9 European countries.

Methodologies helping designers taking into account emotional variables are now viewed with increasing interest by the European Commission and companies due to their strategic role for the market success of future products. ENGAGE partners focused on systemising the processes for integrating emotional aspects into product design domain by developing new methods and tools for analysing and testing customer/user emotional reactions.

The group of *Quality Technology and Management* of the University of Palermo gave its contribution to the project by trying to fill gaps in data analysis, product concept development and validation, respondent preference identification, as well as emotional and affective needs elicitation.

We showed that statistical methodologies can support each of the above mentioned issues by providing objective data to organizations and companies wishing to enter in the affective design area.

One of our main current research areas is the development of innovative methods for Kansei Engineering. Many of the readers know Kansei Engineering as one of the emotional design methodologies aimed at incorporating consumer perceptions

and emotions into product design through a multi-disciplinary approach and methodologies from several fields like social science, psychology, marketing research, etc. Most of the work in the Kansei Engineering is already based on statistical methods for kansei words identification (Factor Analysis, Affinity Diagram, etc.), product properties selection (Pareto Diagram, Kano model, DOE, etc.) and results analysis (Quantification Theory Type I). We think that new statistical methods can be integrated in Kansei Engineering to better estimate the relationships between customer satisfaction and the technical attributes of products and services.

In particular a research work is ongoing in collaboration with *IRCCS Associazione Oasi Maria SS*, an internationally recognised health care and research institution based in Sicily. The research concerns the applicability of Kansei Engineering methodologies for the design of walking aids and prostheses for handicapped patients.

The tools developed by our research group and the other partners within the ENGAGE framework are described and can be downloaded from the ENGAGE project web site: <http://www.designandemotion.org/society/engage/>.

It is evident that the European Commission interest on the emotional design topic is still high. Many research gaps still need to be filled in and ENBIS members are cordially invited to deal with the topic.

For more information, please visit our website: <http://web.dtpm.unipa.it/qt&m/Summary%20page.htm>.

A Note from the Editor

I’m again very happy to note that my invitation to take the pen to paper published in the previous issues of *ENBIS News* still generates a very good response from our members. Contributors to this issue (in alphabetical order) are: Andrea Ahlemeyer-Stubbe, Stefano Barone, Tony Greenfield, Peter Goos, Ron S. Kenett, Jorge Romeu, Fabrizio Ruggeri and Pietro Tarantino.

I would like to thank them for their effort and invite **them** as well as **you** to contribute to the future issues of our newsletter. Do help us increase the positive news flow, the number of networking opportunities for our members, and – last but not least – the transparency of all dealings in the field of business and industrial statistics both Europe- and worldwide.

Looking forward to hearing from you,

Irena Ograjenšek
ENBIS News Editor

ENBIS News Publishing Info

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Ideas for news items should be sent to the editor per e-mail, preferably as an MS Word document.