

# Newsletter ORAHS

November 2006



## Introduction

Dear colleagues/friends! Please find here the autumn 2006 edition of our ORAHS Working Group Newsletter. With this newsletter we intend to give information on activities of the Working Group to its members and others who are interested in the Working Group.

If you have any relevant information, or if you want to write a short contribution for the next newsletter you can send it to Sally Brailsford ([scb@soton.ac.uk](mailto:scb@soton.ac.uk)).

## Agenda of coming meetings

April 2-4, 2007

Fifth IMA International Conference on Quantitative Modelling in the Management of Health Care London United Kingdom

Organizer Thierry Chausset ([chausst@westminster.ac.uk](mailto:chausst@westminster.ac.uk))

May 30 - June 2, 2007

Industrial Engineering and Systems Management Conference Beijing China

Organizers Track Healthcare Management and Engineering: Franklin Dexter, Nadine Meskens ([meskens@fucam.ac.be](mailto:meskens@fucam.ac.be)) and Liam O'Neill

July 8-11, 2007

EURO XXII Conference Prague

Organizer Health Care Stream: Marion Rauner ([marion.rauner@univie.ac.at](mailto:marion.rauner@univie.ac.at))

July 15-20, 2007

ORAHS33 Saint Etienne France ([www.emse.fr/orahs](http://www.emse.fr/orahs))

Organizer Xiaolan Xie ([xie@emse.fr](mailto:xie@emse.fr))

**ORAHS 2006** (*report by Marek Lubicz, [www.ioz.pwr.wroc.pl/konferencje/orahs\\_marek.lubicz@pwr.wroc.pl](http://www.ioz.pwr.wroc.pl/konferencje/orahs_marek.lubicz@pwr.wroc.pl)*)

The 32<sup>nd</sup> Annual Meeting of the EURO Working Group on Operational Research Applied to Health Services took place in Wrocław, Poland, in the period 23<sup>rd</sup> to 28<sup>th</sup> July 2006 at Wrocław Technical University. The co-organisers of the meeting, together with the Institute for Organisation and Management, Faculty of Computer Science and Management, Wrocław University of Technology, were Wrocław Medical University and Lower Silesian Centre for Advanced Technology.

As many of you already know (some even remember themselves!) we hosted Working Group members for the 16th meeting in 1990. Inspired by the formal objectives of the Working Group our aims for 1990 meeting were:

- to discuss the then actual problems of the health system reform in Poland but also other European countries
- to communicate the potential of the OR approach in solving the problems to Polish NHS decision makers
- to inspire local researchers and health system decision-makers.

Since then 16 years have passed, a selection of health system reform manifests, both on national and regional levels (in Lower Silesia at least 4) had been developed, and much effort has been put into guidelines and programs. Many of those included results of some quantitative analyses, some showing even sub-optimisation (under particular criteria, often disputable). On the other hand substantial theoretical developments can be seen in the field of applied quantitative methodologies, including operational research, but also decision support with neural and evolutionary approaches, data mining, particular IT solutions changing dramatically our modelling environment and abilities to effectively use terabytes of health events data to get in seconds, from a data warehouse, answers to decision-maker related queries, instead of waiting hours with Access, Excel or simple home-made data structures. We get those results, communicate important conclusions to clinical or managerial people, but often cannot confirm statistically what have been obtained (no matter expected, required or not), or – more frustrating – we have difficulties with implementing theoretical results on micro level due to the problem of choice. Therefore we encountered once more the issue of criteria, priorities and - through “Killing by numbers” issues - I would say we come back to our discussion in 1990 at ORAHS 16.

The main aims for the ORAHS 2006 meeting have been formulated as follows:

- Discuss the actual 2006 problems of the health system reform and summarise the achievements and pitfalls of the health system reform 1990-2006 (as seen from a quantitative analyst point of view)
- (once more) Communicate the potential of the OR approach in solving the problems (to mostly the same hospital / unit directors and to completely new health system administrators)
- Inspire the local researchers and health system decision-makers (in particular by presenting potential of quantitative methodologies – and to some extent also tools – on case studies from broadly speaking European countries)

The general theme of this meeting “ORAHS in Action – Revisited” was a reflection on the aims of the ORAHS 16, discussing the then actual problems of the health system reform, communicating the potential of the OR approach in solving the problems and inspiring the local researchers and health system decision-makers. We aimed at looking into both methodological developments in quantitative support to solving health problems and practical applications of the developments in the real world. There is a number of successful examples of OR-based approaches, discussed at the ORAHS 16 and further developed in the subsequent years. We also planned to look at the current decision problems, requiring quantitative support in modern health systems, with a special attention paid to restructuring hospital care systems and specific problems of Poland and other CEE countries.

The meeting started on Sunday July 23<sup>rd</sup> afternoon with a get-together in the JPII hotel, where most our participants were accommodated. The conference formally started on Monday morning, together with the e-healthcare symposium organised by the Lower Silesian Centre for Advanced Technology (under e-Health project, sponsored by EU). The opening addresses were given by Deputy Rectors of Wroclaw Technical University, Professor Tadeusz

Wieckowski and Wrocław Medical University, Professor Ryszard Rudnicki, as well as by Professor Jerzy Świątek, the Dean of the Faculty of Information Technology and Management. The participants have also been greeted by Sally Brailsford, Deputy Chairman of the Working Group. Unfortunately we missed Peter Mierzewski, past Deputy Minister of Health, who gave an unforgettable presentation at ORAHS 16 in 1990 and initially agreed to be a keynote speaker, but withdrew for professional reasons in the Council of Europe.

We heard three keynote lectures during the Monday morning plenary session:

- Health Policy and Models in Poland: e-healthcare as seen by decision maker, by Prof. Janusz Zaleski, Wrocław University of Technology & Wrocław Regional Development Agency, past Voivod of Wrocław and past Chairman of National Health Fund (and graduate of the same famous PPT (applied mathematics) faculty of the Wrocław as myself)
- Applying mathematical methods to problems associated with health care by Stephen Gallivan, Director, Clinical Operational Research Unit, University College, London, UK,
- Making Good Decisions for: Planning and Managing Health Services and Preventing, Detecting, and Treating Diseases by Arjan Shahani, School of Mathematics and GeoData Institute, University of Southampton, UK.

In the afternoon we continued with ORAHS & e-health plenary session with a general lecture on priorities and decisions within healthcare:

- What are Health Services for - and does it matter? by Penelope M. Mullen, Health Services Management Centre, University of Birmingham, UK,
- and two local presentations, describing Polish healthcare problems for foreign participants:
- Allocation, Payment by Results - Lower Silesian Approaches 1990-2006, by dr. Jerzy Sypula, Deputy Director, National Health Fund, Lower Silesian Branch,
  - Technology & Changing Healthcare Model in Poland - as seen by clinical manager and cardiology consultant by dr Roman Szelemej, Director, Specialist Hospital, Walbrzych.

Next almost all the participants paid a visit to the Town Hall of Wrocław at central Market Square, where we had a meeting with the Head of the Health Department from the Wrocław Municipality Office. Our final issue of the first day was an excursion by private ship on the Odra river, with barbecue, guitars, beer and even a bottle of wine.

Tuesday sessions started with the last intended plenary sessions. All Monday and Tuesday plenary sessions were arranged with parallel translation to facilitate participation by Polish audience.. Two lectures were given:

- Using Models in Health Care Management Training by Penny Mullen, Health Services Management Centre, University of Birmingham, UK
- Measuring What Matters by Ms Anne Eden, Director of Clinical Services, Hammersmith Hospitals, London, UK. This lecture linked to the Polish presentations on Monday and the general aims of the meeting, as there has been a long tradition of co-operation, facilitated by Anne, on information management and decision making between a number of Wrocław health and academic institutions and a number of English health institutions.

Then we proceeded to the standard ORAHS sessions, run on Tuesday afternoon (session Medical and Healthcare Decisions), all Thursday (four sessions on People and System, Waiting and Queues, Patient Flows, Simulation) and Friday morning. We also had a number of professional activities, including an interesting meeting with Pawel Wroblewski, MD, Marshall of the Lower Silesian Voivodship (Head of Local Government) and visit to the

Specialist Hospital in Walbrzych, homeland of Dr Roman Szelemej, Director of the Hospital. The traditional day trip on Wednesday included also a half-day and evening visit to Ksiaz Castle, the private Castle of the 1990 ORAHS Meeting. We did a tour in the castle, attended a private concert and had a nice dinner. A great number of pictures had been taken by various participants during the sessions and social programme. A selection of them was given to all the participants on Friday on a CD, some pictures are also available at the web page.

In total 25 scientific papers were presented during all sessions. All the presentations for which we received consent of the authors are published on our web page. In addition we are working on the Proceedings, for which we have already received a number of papers. There have been some changes with the final deadline for the Proceedings (which are supposed to be ready by the next meeting in St Etienne); the current final deadline is **end of February 2007**. Please send us your contributions in doc files (or open pdf) according to general EJOR paper format. Your contributions will be reviewed by the members of the Programme Committee of the 2006 Meeting and the ISBN-named monograph will be published, as in 1990, by TUW University Press.

In the Group Affairs session on the Friday morning, it was decided unanimously that ORAHS 2008 would be in Toronto (after an Olympic-style presentation by John Blake) and that ORAHS 2009 would be in Europe again, with the leading “candidate city” being Bruges.

Finally I would like to thank first of all: the participants who have never lost faith, despite delays and misunderstandings. It was extremely nice to host you in Wroclaw and Ksiaz (I was told that you also made trips to other parts of Poland and I hope you had a good time there). I would also like to thank all the organizing committee, in particular Bozena Mielczarek, whose total commitment enabled the meeting to take place, as well as Marek Girek and Katarzyna Janicka our counterparts from e-health scientific network, who are experts in solving unsolvable problems (not only in financial management). Our thanks go also to wonderful Justyna Uzialko, main helper to Bozena, Alina Kristen, organizer of specific issues, Jacek Zabawa, designer of the web page, and – last but not least - Jędrzej Lubicz, organiser of the social programme for accompanying persons.

**ORAHS 2007** (*report by Xiaolan Xie, [www.emse.fr/orahs](http://www.emse.fr/orahs), [xie@emse.fr](mailto:xie@emse.fr)*)

The XXXIII Annual Meeting of the EURO Working Group ORAHS is organized in Saint Etienne, France 15-20/07/2007. ORAHS 2007 will be jointly organized by two universities and a teaching hospital: the Ecole Nationale Supérieure des Mines de Saint Etienne ENSM.SE and the University of Jean-Monnet-Saint Etienne UJM, the Centre Hospitalier Universitaire CHU-SE. The conference will be hosted by ENSM.SE, an 190-year old French ivy League engineering school.

ORAHS'07 will follow the tradition of ORAHS annual meetings with (i) presentation and debate with local health decision-makers and leaders of research initiatives in health care delivery, (ii) technical presentations, (iii) field visits and tours and (iv) a rich social program. ORAHS'07 will also bring together and identify synergy between the ORAHS working group and the French speaking working group GISEH (Gestion et Ingénierie des Systèmes Hospitaliers) of over 120 members in management and engineering of healthcare systems with a series of bi-annual meetings (see [www.tudor.lu/giseh06](http://www.tudor.lu/giseh06)).

ORAHS'07 will present French initiatives in both research and education in the area of health and engineering. It will identify challenges of health care delivery that need joint European research efforts and explore strategies and actions for joint proposals for EC-funded research and development projects.

A two-days introductory and advanced tutorial will be organized for Ph.D. students and local health practitioners.

The theme of the ORAHS'07 will be "Operations Research for engineering health care delivery" which is the common concern of ORAHS and GISEH. Papers in the broad area of quantitative methods applied to health care are welcome. Contributions from health policy decision makers and practitioners are welcome.

For all information, please contact: [orahs@emse.fr](mailto:orahs@emse.fr) and check: <http://www.emse.fr/orahs>. The deadline for submission of abstracts is June 01, 2007

#### *Healthcare delivery engineering in the Region of Rhone-Alps*

To face the increasing demand of healthcare, since year 2000, the French government has launched a number of reforms of healthcare systems including "plan hôpital 2007", "tarification à l'activité (T2A)", "Accréditation qualité", etc. Both public and private health service systems (Hospitals and clinics) are rethinking the practices to adapt their infrastructures, their organisation, and their management to face new regulations in terms of health quality and productivity.

Being aware of the importance of keeping an efficient healthcare delivery system, the region of Rhone-Alps fund since 2000 research programmes in order to investigate the applicability in health services of concepts, methodologies and tools of Operational Research and Industrial Engineering (projects HRP (2000-2003), HRP2 (2004-2006), HRP3 (2006-2010)). Through these projects, the region of Rhone-Alps has become leader for research in healthcare systems engineering in France.

In Saint Etienne, Ecole des Mines de Saint Etienne ENSM.SE (a top-10 graduate engineering school) through its newly created Engineering and Health Division and the University of Jean-Monnet through its laboratory LASPI have been collaborated with the university hospital complex CHU-SE (Centre Hospitalier Universitaire) for the re-engineering of the CHU-SE. Many joint projects such as operating theatre re-engineering, medical devices sterilisation and pharmacy re-organisation have been conducted. The three institutions are now building a joint research institute in health and health care.

#### *About Saint-Etienne, a cultural metropolis at the door of wonderful natural park*

The era of coal mining and metal working firmly belongs to Saint-Etienne's past. The city has clearly evolved towards an economy based on new technologies. However, the city hasn't forgotten his remarkable industrial history. It is the only city in France selected as historical city for the 19<sup>th</sup> century. Beyond the Art and Industry National Museum with its unique collection of elaborate weaponry, unusual bicycles and braided ribbons, a complete industrial heritage is there to be visited.

Saint-Etienne does not only have a rich industrial past but an exciting cultural present. Retaining undiminished spirit of daring innovation, the town seems on the verge of becoming the design capital of the world. The design heritage was the impetus behind the creation, in 1998, of the biennial international festival of design, which was an immediate success (150.000 visitors in 2002). With an internationally renowned Modern Art Gallery, Saint-Etienne offers an exceptional cultural center completed with a plethora of cafés, theatres, clubs and restaurants.

Situated at only 60 km from Lyon, Saint-Etienne is at the crossroads of the major French motorways making easily accessible cities like Geneva, Marseilles, Paris and region like the Alps, Drôme and Provence. The region of Saint-Etienne has much to offer. With a town center situated a stone's throw from the Pilat a regional Nature Park, the Forez mountains and the gorges of the River Loire, Saint-Etienne will give you a direct access to wonderful landscape with medieval villages and old stone castles scattered around. In the middle of the regional park, Saint-Victor water sport center will give you all the opportunities of sailing, water-skiing or canoeing.

## **ORAHS BOARD** *(report by Sally Brailsford)*

At the 2006 EURO Conference in Reykjavik, the Council of EURO decided that it would ask each Working Group to nominate a Board of members who would jointly oversee the activities of the group. This proposal was to ensure that Working Groups could not be dominated by a single person, but there was no suggestion that ORAHS was anything other than democratic!

EURO did not specify the membership or composition of the Board nor its terms of reference, but left it up to individual WGs to decide how they wished to form their Boards and define their role. We discussed this during the Group Affairs session at the Wroclaw meeting, and decided that the current system works very well on the whole but that a fairly small Board to share some of the workload was a good idea. However, since relative few people were there on the final Friday morning, we decided I would liaise with Jan and then email the group to ask for more volunteers. However, Martin Utley kindly volunteered on the spot,

Jan felt an important criterion for eligibility was that the person was a regular attender at meetings, although attendance every year would not be required. We also felt it made sense to include by default the organiser of the most recent meeting, the organiser of the next meeting, and the immediate past-Chairman. As a result of my email I received offers to serve on the Board from quite a lot of people, of whom a couple were not currently eligible by Jan's criterion. On the assumption that Jan and I would also be on the Board, we are proposing that the eleven of us form the Board, as follows: (it looks like a football team, with Jan in goal):

Jan Vissers (Chair)	<i>Netherlands</i>
Sally Brailsford (Secretary)	<i>UK</i>
David Clayden (past Chair)	<i>UK</i>
Harald Buhaug	<i>Norway</i>
Luc Delesie	<i>Belgium</i>
Roger Beech	<i>UK</i>
Xiaolan Xie (2007 organiser)	<i>France</i>
Martin Utley	<i>UK</i>
Marek Lubicz (2006 organiser)	<i>Poland</i>
Marion Rauner	<i>Austria</i>
Leonid Churilov	<i>Australia</i>

In future, the Board membership could be changed at the annual meeting, and we felt ten was probably about the maximum number. The Board's role would probably evolve over time but would be fairly minimal. In addition to general oversight of the group's activities, assisting and advising local meeting organisers and so on, the functions of the Board could include assisting Jan in writing the Newsletter, by providing copy about activities in our own country

for instance. Nearly all the work will be done by email, but we propose that an annual Board meeting be held in the bar during the conference, and that a key role of Board members is to buy a beer for the Secretary and Chairman!

## **EURO- info**

EURO has an extensive website with information on EURO conferences and EURO Working Groups. The website contains also an annual report of ORAHS. The EURO vice-president 2 in charge of the Working Groups is Professor Chris Potts, Faculty of Mathematical Studies, University of Southampton, who is not only *ex officio* a member of our working group, but has become a regular attender of our meetings. For more information about EURO, see [www.euro-online.org](http://www.euro-online.org)

We also received two calls from EURO for prizes awarded at EURO conferences. The first price is the EDDA (EURO Doctoral Dissertation Award), a new EURO instrument. It will be awarded for the third time at the closing session of the EURO-2007 conference (Prague-July9-11, 2007). The purpose is to identify the best PhD. thesis defended in the EURO countries during the last year.

The second price is the EEPA (EURO Excellence in Practice Award). The purposes of the competition are to recognise outstanding accomplishments in the practice of Operational Research, attract more application-oriented papers to EURO Conferences, and promote the practice of Operational Research in general. All interested authors are invited to submit papers describing an application of Operational Research which has original features, whether in methodology, application or implementation, the age limit for the papers being four years. The papers must not have been submitted concurrently to another competition. The invitation is open to Operational Research specialists from any part of the world. The jury selects a short-list of finalist papers which will be presented in a special session of the EURO Conference. There is no registration fee for one author of each of the finalist papers. The winner will be determined by the jury at the end of the special session and will be announced by the chairman of the jury during the closing session of the EURO-Conference. For more information see: <http://www.euro-online.org>.

## **Web-site news** (*report by Sally Brailsford*)

The ORAHS website contains information about many of the previous meetings of the group, going back as far as 1975 when the first ever meeting was held (in Exeter, UK under the chairmanship of Duncan Boldy). It is updated again with new members' details and updates from current members. Please check your details and if you would like anything changed, email Sally ([scb@soton.ac.uk](mailto:scb@soton.ac.uk)). We welcome ideas and suggestions for the website.

The new website is up and running at <http://www.management.soton.ac.uk/orahs/>. If you have not already done so, please update your bookmarks. For the time being, you will be re-routed here from the old site, but I'm not sure how long this will continue. There are some features which still remain to be updated, but the site is database-driven which means that it will be much easier to maintain in the future. Many thanks to Paul Davie for his work on this.

## **Short communications**

### ***Proceedings ORAHS2004 meeting in Stockholm (report by Marten Lagergren)***

The proceedings of the 30<sup>th</sup> meeting of the Group, which took place in Stockholm in 2004, are finally published. It took some time & effort for Marten & Rose-Marie Hedberg to finish this job, but we congratulate them with the result. In total 14 papers are included. For more information contact Marten Lagergren (marten.lagergren@aldrecentrum.se).

### ***Proceedings ORAHS2005 meeting in Southampton (report by Sally Brailsford)***

The Proceedings of ORAHS2005 are now with the publishers (Peter Lang again) and we hope they will appear in the spring. The special issue of JORS based around the papers presented at ORAHS 2005 will appear in February 2007, as Vol 58 No 2. The special issue of EJOR based on the EURO Summer Institute on OR Health will also appear in 2007 but I don't know when exactly yet. However the papers are all available online.