

EURO Bulletin

Bulletin of the Association of European Operational Research Societies (EURO) distributed 4 times a year (Spring, Summer, Fall, Winter) through the National Societies. Societies or individual members having news for the EURO Bulletin are requested to send their information to the editor: Ph. Van Asbroeck, 108 av. Sleenckx, B-1030 Brussels, Belgium (tel. & fax.: +32 2 245 60 69).

from EURO Past President, Professor Jaap Spronk

Aspects of Applications

Many editors of scientific journals in Management Science and Operational Research complain about the low number of papers on applications, with applications or even mentioning the possibility of applications being submitted. Then, with respect to the application-oriented papers that are being submitted, they complain about the below average quality of these papers: too long, many uninteresting parts, notably too many irrelevant details and often written too loosely.

Of course, there are journals paying specific attention to applications and/or which are problem-oriented (which is not necessarily exactly the same). A good example is, of course, *Interfaces*. Other journals' feature, from time to time, invited contributions devoted to the practice in

some particular field of Management Science and Operational Research. Nevertheless, complaints remain. Not only those of the editors but also many readers call for more attention to 'practice' and 'real-life problems'. This leads us to the question who the readers of these scientific journals actually are. It is not so strange to assume that the readers of these journals are, indeed, scientists. However, many do believe or want to believe that the readership includes a lot of practitioners. I do not believe so, I think that most practitioners are less interested in the broad-scope journals which our Management Science and Operational Research Journals generally are. Practitioners prefer to read material which is both easily accessible and too a large extent relevant within their own working environment. The limited number of practitioners reading Management Science and Operational Research literature are probably of the species of hybrid scientists with a part-time job in practice.

If these hypotheses concerning the readership are sufficiently acceptable to not be rejected, the composition of the readership in itself already explains the low amount of practical contributions: many practitioners are simply not familiar enough with our journals. Furthermore, they have less incentives to publish in scientific journals than the scientists them-

INSIDE

- ① Aspects of Applications
- ② News from Russia
- ③ The new EURO statutes
- ④ EURO XIII Glasgow 1994
- ⑤ ESI IX Mannheim 1993

from EURO Past President, Professor Jaap Spronk

selves. Therefore one may assume that the practical contributions that can be found in our journals are written by practitioners with prior experience in writing academic articles obtained during an earlier, scientific career, or by the hybrid scientists mentioned before. These are also busy people but they may have more incentives to publish in academic journals.

The practitioners, who do publish in scientific journals are apparently not always aware of the following two points:

i) the target group of the article is the scientific community and not the potential clients. Failure to recognise this point easily leads to somewhat exaggerated claims as regards the success of the approach followed. Claims which may do well in an advertising brochure may easily irritate referees and or editors.

ii) the article does not have to give an 'abbreviated but still complete' description of the application. An adequate description of a real-life application, especially if it is to be understandable for a larger audience than a few insiders, requires lots of pages of which many are not interesting at all for others than those familiar with the application.

Notably the second point may play a role also in the refereeing process of application oriented articles. Editors and referees may ask for more details to have a better picture of the application. This will easily lead to disappointment because large parts of many applications are not worth reporting on in scientific journals be-

cause 'it has been done before' and has been described many times already.

This may raise the question whether the results of 'interesting practical work' are interesting enough to warrant publication in scientific journals. The answer must of course be yes. However, it becomes boring when the complete story is told! Many applications contain surprising aspects which are well worthy to be published. For instance, because they yield important empirical insights, a.o. with respect to the validity or plausibility of the assumptions underlying our approaches.

With the agreement of the editor of the EURO Bulletin it has been decided to start with a new section in this bulletin: **Aspects of Applications, Aspects of Decisions Problems.**

The purpose of this section is to give (semi-) practitioners the opportunity to ventilate insights obtained through applying MS/OR techniques and studying decision problems in practice. Thus giving mind teasing, stimulating input to the readers of this bulletin, which are partly full-time scientists and partly the hybrids described above. It suffices to give a clear description of the problem / application aspect which has drawn the attention. It is not necessary to give a full description of the application at hand. The readers of the EURO Bulletin will be invited to react on the mind teasers described in the "Aspects" section.

Jaap Spronk

from Dr. Alexander Lotov

The Russian-Finnish Technical Working Group on Operations Research

The Russian-Finnish Technical Working Group on Operations Research (TWGOR) was established in 1974. During the first ten years of the activity, the search theory was the main topic. As one of the major results I can mention the book by Professor O. Hellman from the Turku University (Finland) entitled «Theory of optimal search», published in Moscow in Russian by Nauka Publishing House in 1985.

At the beginning of 1984 the activity of the TWGOR was established in the form of a project between Academies of Sciences of both countries under the title «Application of Optimal Control Theory and Operations Research to Regional Planning». After that time the activity of the TWGOR was related to decision support in economic and environmental problems. In particular, it was fulfilled an investigation of a model of economic growth taking pollution and unemployment into account. It resulted in a paper published in EJOR (Lotov, A., Chernykh, and Hellman, O. (1992), Multiple objective analysis of long-term development strategies for national economy, EJOR, 56(2)).

A new project was started in 1991. The title of the project is «Economic Modelling, Decision Making and Expert Systems». The project includes

three main topics: 1/methods of multicriteria optimisation and computer-based support of public decision making in environmental problems; 2/ systems approach to modelling of national economies; 3/ application of artificial intelligence in medical diagnostics. The first result of these activities is the investigation on the methodology of decision support in international environmental problems, described in Bushenkov V., Kaitala V., Lotov A., Pohjola M (1992), Decision and Negotiation Support for Transboundary Air Pollution Control between Finland, Russia and Estonia, Research Institute of Finnish Economy, Discussion Paper n°418, Helsinki, Finland.

This publication is based on a new multiple criteria computer-based technology of decision and negotiation support in environmental and other decision problems. The technology called the Generalised Reachable Sets method provides the opportunity to visualise objective trade-off curves on display. Further plans of the TWGOR include application of the GRS method in negotiation support related to international problems like European acid rain problem and the Baltic Sea water pollution. In the frame of the TWGOR, joint investigations on non-linear optimisation topics, economic modelling and medical diagnostics systems are planned to be continued as well.

INFORMATION: A. V. Lotov, Ph.D., Dr. in Science, Head of the Laboratory of Mathematical Methods for Economic Decision Analysis, Computing Centre of Russian Academy of Sciences, Vavilov Street 40, Moscow 117967, Russia. (tel.: (7 095) 135 12 09, fax: (7 095) 135 61 59, E-mail: LOTOV@SMS.CC AS.MSK.SU)

from E. A. Field, Past-treasurer of EURO

Night of the long Statutes!

Let me start by apologising to Members for the length of the newly revised EURO statutes. These were the ones approved by the EURO Council when it met in Lisbon. The text approved was the sixth draft that had I prepared. The new statutes contain 44% more words (56% more bytes of text) than the old ones. I hope you think that it was a price worth paying for the added accuracy and clarity.

My main purpose in revising the statutes was to bring them into line with the Swiss law. On the Continent it is the intention of the law maker that must be established. In contrast, under English law, it is the meaning of the words that has to be established. Take for example the following article from the Code Civil Suisse.

Art. 74

No change in the object of the society can be forced upon any of its members.

Under the old statutes the objects of EURO were linked to those of IFORS. Any change to IFORS objects would have automatically triggered a change to those of EURO. Now the new statutes require any change to conform with ARTICLE I, 5.

Another issue arose because EURO is

a meta-society, ie a society of societies. How should the following two Code articles be interpreted?

Art. 68

No member is by law allowed to vote on motions that relate to any transaction or legal proceedings between the society of the one part and himself, his spouse or any of his ascendants or descendants in a direct line of the other part.

Art. 70

Membership is the inalienable right and does not pass on death.

The new statutes IV-12 deals with Art 68. The interpretation of Art 70 for a meta-society is less obvious. I interpreted it as meaning that if a society ceased to be a member, any successor claiming the same title could not take up the lapsed membership without re-election. Thus the membership rules in the new statutes, II - MEMBERSHIP, cover the point.

There are two other issues that still remain vague. The first concerns Code article 71.

(continued)

Art. 71

Members' subscriptions are fixed by the constitution of the society. Where it does not fix them, members must contribute equally to the necessary expenses incurred in carrying out the objects of the society and to the payment of its debts.

Most of the EURO's activities take place outside of Switzerland. The two largest activities are the EURO K conferences and EJOR. What would happen if EURO, or its agents, were to default on a business arrangement? EURO could well find itself involved in a court action that did not take place in Switzerland. Under the royalties contract that EURO has with its publishers, any dispute must be adjudicated under Dutch law. Paying a 100 SFr annual subscription would give little protection to the EURO member societies!

On the positive side however, sentencing, following a verdict of guilty, would be likely to take account of EURO's status under Swiss law. This would provide a level of protection to members.

The last issue I want to raise, concerns the income of EURO. You recall Jean Bovet's call, in the Summer Bulletin, for finding more ways of spending income on EURO instruments. There is little in the Code on this subject. Art. 71 above has some bearing and so does Art. 61. below.

Art. 61

When the constitution of a society has been passed and its directorate appointed, it can be registered in the commercial register.

If for the better attainment of its object the society carries on an industry on commercial lines, registration is compulsory.

In the absence of any clearer guide I fell back to Art. 64.

Art. 64

The general meeting of the members is the highest organ of society.

The Council has the overall responsibility for everything that happens in the pursuit of EURO's objects. This is a requirement under Swiss law and cannot be changed by the statutes.

To reflect this responsibility I structured the new statutes to strengthen the sovereignty of the Council. I also introduced into the statutes formal accountability to Council. This is contained in the new ARTICLE X - AUDITING AND CONTROL.

So whatever the legal situation might be with respect to income, the EURO Council can now be seen to be in control of its affairs.

E. A. Field
Past-treasurer of EURO

from Valerie Belton, Chair. of the EURO XIII Organising Committee

Report on EURO XIII

The period from July - December has been fairly quiet for the Organising Committee, as one would expect. During this time we have been monitoring / confirming bookings and Geoff Williamson has been beginning to seek sponsorship from local organisations (to date we have sponsorships from Hiram Walker, Clydesdale Bank and John Smiths the book shop). We will launch our primary campaign to raise sponsorship from UK organisations with the publication of the invitation programme. Ron Summers is investigating sources of sponsorship for conference attenders coming from Eastern Europe.

Mark Elder is progressing arrangements for the exhibition of books and computer softwares. We have a number of reservations already.

Fiona McElhinney has been investigating the possibility of a "Scottish Fayre" exhibition on the last day - this is not looking too promising, unfortunately. Fiona is also organising a programme for accompanying persons. The

intention is that this will comprise a 1 day outing (probably to Loch Lomond, Inverary Castle, a distillery - cost £50 including lunch) and a half day outing to include the Burrell Collection (cost £15-£20).

Professor Jay Forester (well known for his work in Systems Dynamics and his book "Limits to Growth") has accepted our invitation to give the closing plenary session.

The call for papers went out in June / July with a deadline for submission of abstracts of 1 December. During this time the Programme Committee have been very active as "super-stream" organisers. Their role has been to invite and co-ordinate session organisers, who were tasked with inviting individual speakers.

By the December 1 deadline we had around 250 papers. Our original plan had been to draw up the invitation programme before Christmas. However, abstracts were still flooding in at that stage so we postponed our meeting to last weekend (9/10 January),

(continued)

Glasgow 19-22 July 94

which the Chairs of the PC and OC devoted to this activity. We have had over 600 papers submitted, around 400 of which have been invited.

These have been organised in 33 parallel streams (a stream is 7 sessions of 3 x 30 minute papers), which are made up roughly as follows: Transport and Traffic 3 streams; Scheduling 4 streams; DEA 1+ stream; Risk & Finance 1- stream; Multiple criteria methods / applications 4 streams; Fuzzy methods 1 stream; Group Decision Support 1 stream; Systems and Rationality 1 stream; Problem Solving & Heads of OR sessions 1 stream; Military OR 1 stream; OR in Health 1+ stream; Public Sector / Environment / Education 1 stream; Forecasting 1-stream; Inventory / Maintenance / Optimal Control 1 stream; Simulation 1 stream; Production / Operations Management / FMS 1 stream; DSS / ES 1 stream; Mathematical programming (including: Combinatorial Optimisation, Global Optimisation, Modern Heuristics, Vehicle Scheduling, Integer programming, Cutting & Packing, Timetabling) 6 streams.

Plus 2 or 3 streams of individual or pairs of sessions

In addition to the above there is a "semi-plenary" session of Tutorial/Research Review papers each day (16 papers in total). These papers will be collated in a booklet to be given to all conference delegates. Denis Bouyssou is discussing the possibility of publishing some (all?) of them as a special issue of EJOR.

I hope that the invitation programme will be on its way to the printers by next week at the latest. It will be distributed in late February to authors, national societies, etc. The deadline for early registration (at the lower rate) is April 30. The final programme will not include papers of authors who have not registered by this date.

Valerie Belton

(Report for the EURO Executive Committee Meeting, 14-15 January 1994).

from EURO Vice President, Professor Costas Pappis

EURO Summer Institute 1993 at Mannheim University

This year's Euro Summer Institute (ESI IX) took place at the University of Mannheim from July 26 until August 7, 1993. It was organised by Prof Dr. Christoph Schneeweiss, Head of the Department of Operations Research of the Mannheim Faculty of Business Administration. About 30 participants from Europe and the USA presented papers and discussed problems of hierarchical planning.

Taking place every year in another country with changing topics, it is one of the essential aims of a European Summer Institute to build up a European net of academic research scientists. As usual, the Institute was substantially sponsored by EURO. In addition, ESI IX was supported by the German OR Society (DGOR), the German Research Foundation (DFG) and the Ministry of Science and Research of Baden-Württemberg.

Within the scientific programme, 24 participants from all over Europe presented their own research works. Moreover, several experts in the field of hierarchical planning were invited with whom the participants had the opportunity to discuss their papers. Two visits to John Deere, Mannheim and VEGLA, Mannheim illustrated the importance of new planning methods for controlling modern operating procedures in industry.

Naturally, most of the presentations of participants and experts dealt with hierarchical planning problems in the production field and particularly with interesting applications and modifications of the Hax/Meal model. Some of the papers presented case studies and Decision Support Systems, like the planning of resources for a shipping company, or planning the production programme for a shoes factory or the optimal use of cold storage rooms for storing perishable goods. One reason for the success of these applications certainly is their hierarchical structure, which is an important point for the acceptance in practice. Besides general questions on aggregation/disaggregation problems, agency theoretic problems were also presented and discussed showing that hierarchical structures are important not only in the production field.

Although the papers were partly dealing with entirely different questions of hierarchical planning problems, there was, however, common ground regarding the general problem structure. First starting-points for the development of a comprehensive theory of hierarchical planning could be worked out. The results of the ESI IX will be collected in a special issue of EJOR which is to appear by the end of 1994.

Professor Costas Pappis

EVENTS

Present section was closed on 14 February 1994; «*» denotes information featured previously.

March 2, 1994

Conference on Vulnerability, Risk and Security in Informatics, Brussels, Belgium; Information: Prof. Thomas L. Ward, Industrial Engineering, University of Louisville, Louisville KY 40292, USA (tel.: (502) 588-6342, fax: (502) 588-5633, E-mail: TLWARD01@ULKYVM.BITNET or tlward01@ulkyvm.louisville.edu);

March 14-16, 1994

*International Fuzzy systems and Intelligent Controls Conference, Louisville, KY, USA; Information: Prof. Thomas L. Ward, Industrial Engineering, University of Louisville, Louisville KY 40292, USA (tel.: (502) 588-6342, fax: (502) 588-5633, E-mail: TLWARD01@ULKYVM.BITNET or tlward01@ulkyvm.louisville.edu);

March 17-20, 1994

*TIMS Marketing Science Conference on Advances in the Theory and Practice of Marketing Science, Tucson, USA; Information: TIMS, 290 Westminster Street, Providence, RI 02903 USA (tel.: (401) 274-2525);

March 21-23, 1994

*Young OR Conference, York, UK; Information: Sandra Weddell, Co-Chair. YOR8, H. M. Treasury, 10/5 Treasury Chambers, Parliament Street, London SW1P 3AG, UK (tel.: +71 270 5390 (work) or +71 733 6644 (home), fax: +71 270 5653);

March 23-25, 1994

4a Conferência Aplicações da Matemática à Economia e à Gestão, Lisboa, Portugal; Information: Secr. do CEMAPRE, Gabinete 209 - R. Miguel Lupi 20, P-1200 Lisboa, Portugal (tel.: +1 60 70 99, ext. 259, fax: +1 397 41 53);

March 28-30, 1994

Information: IO 94 - 6º Congresso da APDIO, Braga, Portugal; Information: Prof. Isabel Themido, CESUR-IST, Av. Rovisto Pais, P-1000 Lisboa, Portugal (tel.: +1 809 580, fax: +1 809 884);

April 5-8, 1994

*CO94 Conference on Combinatorial Optimization, Amsterdam, The Netherlands; Information: Simone van der Wolff / CO94, CWI, P.O. Box 4079, NL-1009 AB Amsterdam, The Netherlands (tel.: +31 20

5924 189, fax: +31 20 5924 199, E-mail: co-94@cwi.nl)

April 5-8, 1994

*12th European Meeting on Cybernetics and Systems Research, Wien, Austria; Information: Robert Trappl, Dept. of Med. Cybernetics & AI, University of Vienna, Freyung 6/2, A-1010 Wien, Austria (tel.: +43 1 535 32810, fax: +43 1 532 0652, E-mail: sec@ai.univie.ac.at);

April 7-8, 1994

* 39th EWG Meeting on Multicriteria Aid for Decisions, Poznan, Poland; Information: R. Slowinsky, Institute of Computing Science, Technical University of Poznan, ul Piotrowo 3A, Pl-60-965 Poznan, Poland (fax: +61 782363);

April 18-21, 1994

*The International Emergency Management and Engineering Conference, Miami, Florida, USA; Information: TIEMEC '94, Jim Sullivan, 2995 LBJ Freeway, Suite 200, Dallas, Texas 75234, USA (tel.: (214) 888-8804, fax: (214) 270-3014, E-mail: gaa201@utdallas or gaa201@utdalls.edu);

April 24-27, 1994

*TIMS/ORSA Meeting on OR/MS without Boundaries, Boston, USA; Information: TIMS/ORSA Boston '94, c/o ORSA Business Office, 1314 Guilford Avenue, Baltimore, MD 21202, USA;

April 25-27, 1994

*1994 IMACS International Symposium on Signal Processing, Robotics and Neural Networks, Lille, France; Information: SPRANN'94, Ecole centrale de Lille, BP 48, F-59651 Villeneuve d'Ascq Cedex, France (tel.: +33 20 33 53 10, fax: +33 20 33 54 99, E-mail: SPRANN94@ldnges.decnet.citilille.fr);

April 29, 1994

International Colloquium on Fuzzy Logic and its Application, Brussels, Belgium; Information: Prof. F. Broeckx (tel.: +3 218 07 84, fax: +3 218 06 52);

May 4-6, 1994

*4th EURO Mini Conference on Risk Management, Liège, Belgium; Information: Prof. Dr. Ing. Gérard Colson, EURO, Université de Liège, Bâtiment B31, Bte 50, B-4000 Liège, Belgium (tel.: +32 41 56 31 88, +32 41 56 27 21, fax: +32 41 56 28 21);

May 9-11, 1994

*7th Meeting of the EURO Working Group on Locational Analysis, Brussels, Belgium; Information: Prof. F. Plastria, INVE

(Research Center for Industrial Location), Vrije Universiteit Brussel, Pleinlaan 2, B-1050 Brussels, Belgium (tel.: +32 2 641 3609 or +32 2 641 3607, fax: +32 2 641 3645, E-mail: FAPLASTR@VUB.AC.BE);

May 9-13, 1994

*4th International Workshop on Computer Aided Systems Technology, Ottawa, Canada; Information: Tuncer I. Oren, University of Ottawa, Computer Science Dept., Ottawa, On, Canada K1N 6N5 (tel.: +613 564 5068, fax: +613 564 7089);

May 24-27, 1994

*KR'94 4th International Conference on Principles of Knowledge Representation and Reasoning, Wien, Austria; Information: Piero Torasso, Università di Torino, Corso Svizzera 185, I-10149 Torino, Italy (tel.: +39 11 771 2002, E-mail: torasso@di.unito.it);

May 24-28, 1994

International Workshop on Mathematical Methods and tools in Computer Simulation, St Petersburg, Russia; Information: Sergei Ermakov, Faculty of Mathematics and Mechanics, St Petersburg State University, Bibliotechnaya sq. 2, Petrodvorets, St Petersburg, 198904, Russia (fax: +7 812 428 66 49 or 428 70 39, E-mail: statmod@hq.math.lgu.spb.su

May 25, 1994

6th Tartu Conference on Multivariate Statistics and Applications, Tartu, Estonia; Information: University of Tartu, Dept. of Math. Statistics, Tartu EE2400, Estonia (tel.: +37234 306 41, Fax: +37234 354 40, E-mail: etiti@math.ut.ee)

May 26-28, 1994

15th Meeting of the EURO Working Group on Financial Modelling, Rotterdam, The Netherlands; Information: Prof. Jaap Spronk, Erasmus University Rotterdam, Dept. of Finance, P. O. Box 1738 NL-3000 DR Rotterdam, The Netherlands (tel.: +31 10 408 1285, fax: +31 10 452 3699);

May 30-31, 1994

*2nd European conference on Information Systems, Breukelen, The Netherlands; Information: Walter Baets, Nijenrode University, The Netherlands Business School, Straatweg 25, NL-3621 BG Breukelen, The Netherlands (tel.: +31 3462 91275, fax: +31 3462 91250);

May 30-June 1, 1994

*CORS 1994 & Optimization Days, Montréal, Canada; Information: Gilbert Laporte, Programme

EVENTS

Chairman, Centre for Research on Transportation, Université de Montréal, P.O. Box 6128, Station A, Montréal, Canada (tel.: +514 343 6143, fax: +514 343 7121);

May 30 - June 3, 1994
26ème congrès national d'analyse numérique, Les Karellis, France;
Information: SMAI, Institut Henri Poincaré, 11 rue Pierre et Marie Curie, F-75231 Paris, France;

June 1-3, 1994
*International Conference on Multi-Objective and Goal Programming, Portsmouth, UK;
Information: M. Tamiz, School of Mathematical Studies, University of Portsmouth, Mercantile House, Portsmouth, Hants PO1 2EG, UK (tel.: +44 705 843 110, fax: +44 705 823 504, E-mail: Tamizm@uk.ac.port.cv);

June 5-10, 1994
5th Valencia International Meeting on Bayesian Statistics, Alicante, Spain;
Information: Prof. José M. Bernardo, Centro de Documentación y Análisis, Presidencia de la Generalidad, Caballeros 9, E-46001 Valencia, Spain (tel.: +34 6 3866138, fax: +34 6 3863626);

June 6-10, 1994
*CAISE'94, 6th Conference on Advanced Information Systems Engineering, Utrecht, The Netherlands;
Information: Gerard M. Wijers, SW Engineering Res. Centre, P.O. Box 424, NL-3500 AK Utrecht, The Netherlands (tel.: +31 30 545 412, fax: +31 30 545 948, E-mail: gwijers@serc.nl);

June 12-15, 1994
*14th International Symposium on Forecasting, Stockholm, Sweden;
Information: Sune Karlsson, Dept. of Economic Statistics, Stockholm School of Economics, P.O. Box 6501, S-11383 Stockholm, Sweden (fax: +46 8 30 21 15, E-mail: ISF94@HHS.SE)

June 12-15, 1994
*TIMS XXXII Meeting on Natural Resources, Economic Development and the Environment: The Role of Management Science, Anchorage, Alaska;
Information: TIMS XXXII - Anchorage, The Institute of Management Sciences, 290 Westminster Street, Providence, RI 02903 USA (tel.: +401 274 2525, fax: +401 274 3189);

June 14-17, 1994

*16th International Conference «Information Technology Interfaces», Pula, Croatia;
Information: Branka Radic, University Computing Centre, J. Marohnica bb, 41000 Zagreb, Croatia, (tel.: +38 41 518 656, fax: +38 41 518 451, E-mail: ITI@SRCE.HR);

June 14-17, 1994
BIOSTAT '94 1st Meeting of Researchers in Biometrics, Pula, Croatia;
Information: Branka Radic, University Computing Centre, J. Marohnica bb, 41000 Zagreb, Croatia, (tel.: +38 41 518 656, fax: +38 41 518 451, E-mail: ITI@SRCE.HR);

June 15-17, 1994
*11th International Conference on Analysis and Optimization of Systems, Sophia-Antipolis, France;
Information: Conference Secretary F. Tapissier, DES94 - INRIA, Rocquencourt, Bureau des Cours et Colloques, B.P. 105, F-78153 Le Chesnay Cedex, France (fax: +33 1 39 63 56 38)

June 20-24, 1994
*Interdisciplinary Conference on Neural Modelling, Lyon, France;
Information: Mme Claire Rigaud-Bully, AIDRI Bat. 101, Université Claude Bernard, Lyon 1, 43 Bld. du 11 Novembre 1918, F-69622 Villeurbanne Cedex, France (tel.: +72 44 8000 34, fax: 72 44 0573, E-mail: AIDRI@CISM.Univ-Lyon1.France);

June 22-24, 1994
** IFAC Workshop on Intelligent Manufacturing Systems, Wien, Austria;
Information: IFORS Secretariat, H. Weilling Secretary, c/o IMSOR bldg. 321, Technical University of Denmark, DK-2800 Lyngby, Denmark (tel. +45 42 88 14 33 / ext 3410, +45 42 88 22 22 / ext 3410, fax: +45 42 88 13 97);

June 22-25, 1994
*7th SIAM Conference on Discrete Mathematics, Albuquerque, New Mexico, USA;
Information: SIAM, 3600 University City Science Center, Philadelphia, PA, USA (E-mail: meetings@siam.org)

June 23-28, 1994
*Triennial Symposium on Transportation Analysis, Capri, Italy;
Information: Prof. Lucio Bianco, IASI, National Research Council, Viale Manzoni 30, I-00185 Roma, Italy (tel.: +39 6 771 61, fax: +39 6 771 6461, E-mail: BIANCO@IASI.RM.CNR.IT);

June 30-July 3, 1994
5th Meeting EURO Working Group on Decision Support Systems, Turku, Finland;
Information: Timo Leino, P.O. Box 110, SF-20521 Turku, Finland (fax: +358 21 6383 451, E-mail: tleino@finabo.abo.fi);

July 1-15, 1994
* 10th EURO Summer Institute on Combinatorial Optimization, Jouy-en Josas, France;
Information: Prof. Catherine Roucairol, Univ. Versailles - INRIA, Domaine de Voluceau, BP 105 Rocquencourt, F-78153 Le Chesnay Cedex, France (fax: +33 1 3963 5330);

July 4-6, 1994
* IFAC Symposium on Identification and System Parameter Estimation, Lyngby, Denmark;
Information: Prof. R. V. Vidal, IMSOR bldg. 321, Technical University of Denmark, DK-2800 Lyngby, Denmark (tel. +45 42 88 14 33 / ext 3410, +45 42 88 22 22 / ext 3410, +45 45 93 12 22 / ext 3410, fax: +45 42 88 13 97);

July 4-8, 1994
Information Processing and Management of Uncertainty in Knowledge-Based Systems, Paris, France;
Information: IPMU'94, c/o Bernadette Bouchon-Meunier, LAFORIA-IBP, Université Paris VI, Boîte 169, 4 Place Jussieu, F-75252 Paris Cédex 05, France;

July 4-8, 1994
*VII Congreso Latino-Ibero Americano de Investigación de Operaciones e Ingeniería de Sistemas, Santiago, Chile;
Information: Dr. Maximo Bosch, Departamento de Ingeniería Industrial, Universidad de Chile, Casilla 2777, Santiago, Chile (fax: +56 2 689 7896);

July 4-16, 1994
*5th International Summer School on Multiple Criteria Decision Aid, Chania, Crete, Greece;
Information: Yannis Siskos, Technical University of Crete, Greece (fax: +30 821 64824);

July 11-15, 1994
*System Dynamics Conference, Stirling, UK;

Information: Claire Monaghan, Department of Management Science, University of Stirling, Stirling FK9 4LA, UK (tel.: +786 467 360, fax: +786 467 359);

July 12-15, 1994
* 4th International Workshop on Project Management and Scheduling, Leuven, Belgium;

EVENTS

Information: Prof. Dr. Erik Demeulemeester, Prof. Dr. Willy Herroelen, Katholieke Universiteit Leuven, Department of Applied Economics, Dekenstraat 2, B-3000 Leuven, Belgium (tel.: +32-16-28 57 70 or 28 45 63 or 28 45 59, fax: 32-16-28 57 99, E-mail: fdbaa49@blekul11);

July 19-22, 1994

* **EURO XIII Conference**, Glasgow, UK;
Information: Valerie Belton, Department of Management Science, Strathclyde Business School, University of Strathclyde, Livingstone Tower, 26 Richmond Street, Glasgow G1 1XH, UK (tel.: +41 552 4400, fax: +41 552 6686);

July 25-30, 1994

* **6th International Congress on Computational and Applied Mathematics**, Leuven, Belgium;
Information: Prof. F. Broeckx, Universiteit Antwerpen RUCA, Middelheimlaan 1, B-2020 Antwerpen, Belgium (tel.: +32 3 218 07 84, fax: +32 3 218 06 52, E-mail: BROECKX@BANRUC60.Bitnet

July 25-30, 1994

* **4th International Statistical Institute Conference on Teaching Statistics**, Marrakech, Morocco;
Information: Mr. El Ghazali Abdelaziz, Chairman of the Local Organizing Committee, I.N.S.E.A., P.O. Box 6217, Rabat Instituts, Rabat, Morocco, or Prof. Y. Escoufier Chairman of the Programme Committee, Université Montpellier II, Science et Technique du Languedoc, Place E. Bataillon, F-34095 Montpellier Cedex, France;

July 26-28, 1994

* **IFAC Symposium on Transportation Systems: Theory and Applications of Advanced Technology**, Tianjin, China;
Information: IFORS Secretariat, H. Weilling Secretary, c/o IMSOR bldg. 321, Technical University of Denmark, DK-2800 Lyngby, Denmark (tel. +45 42 88 14 33 / ext 3410, +45 42 88 22 22 / ext 3410, +45 45 93 12 22 / ext 3410, fax: +45 42 88 13 97);

July 26-29, 1994

* **Association of Asian-Pacific Operational Research Societies Conference on Development in Diversity and Harmony**, Fukuoka, Japan;
Information: APORS'94, Operations Research Society of Japan, Gakkai-Centre Bldg. 4-16, Yayoi 2-chome, Bunkyo-ku, Tokyo 113, Japan;

August 1-6, 1994

* **11th International Conference on Multiple Criteria Decision Making**, Coimbra, Portugal;

Information: 11th International Conference on MCDM, INESC, Rua Antero de Quental 199, P-3000 Coimbra, Portugal (tel.: +351 39 324 30, fax: +351 39 246 92, E-mail: ximcdm@inescc.pt);

August 8-12, 1994

* **7th International Biometric Conference of the Biometric Society**, Hamilton, Ontario, Canada;

Information: Prof. P. D. M. Macdonald, Dept. of Mathematics and Statistics, 1280 Main Street West, Hamilton, Ontario, L8S4K1, Canada;

August 15-19, 1994

* **15th International Symposium on Mathematical Programming**, Ann Arbor, Michigan, USA;

Information: 15th ISMP, Conferences and Seminars, 541 Thompson Street, Room 112, University of Michigan, Ann Arbor, MI 48109-1360, USA (tel.: +313 764 5305, fax: +313 764 2990, E-mail: xvismp@um.cc.umich.edu);

August 22-26, 1994

* **Conference on Manufacturing in Southern Africa**, Cape Town, South Africa;

Information: Prof. R. Reineke, Dept. of Industrial Engineering University, ZA-7600 Stellenbosch, South Africa (tel.: +21 808 4235, fax: +21 808 4245);

August 24-26, 1994

* **7th Symposium on Transportation Systems: Theory and Application of Advanced Technology**, Tianjin, China;

Information: Prof. G. G. He, IFAC/IFORS Symposium TS'94, Institute of Systems Engineering, Tianjin University, Tianjin 300072, P. R. China (fax: +86 22 358 329);

September 27-28, 1994

* **Computational methods for transfert of solutes in porous media**, Besançon, France;
Information: M. Di Guglielmo, Laboratoire du calcul scientifique, 16 Route de Gray - La Bouloie, F-25030 Besançon, France (Tel.: +33 81 66 63 14, fax: +33 81 66 64 94);

September 28-30, 1994

* **First European Conference on Cognitive Science in Industry**, Luxembourg,;

Information: R. Bisdorf, Centre de Recherche Public - Centre Universitaire, 162a avenue de la faïencerie, L-1511 Luxembourg (tel.: +352 47 02 or +352 44 01 95, fax: +352 47 02 64, E-mail: bisdorff@crpcu.lu)

September 28-30, 1994

* **AILOG / AIRO Conference on Networks of Services and Firms, Methods and Technologies**, Santa Margherita Ligure, Italy
Information: AILOG / AIRO Conference Secretariat, DIST, Università di Genova, Via Opera Pia 11A, I-16145 Genova, Italy (tel.: +39 10 353 2982, fax: +39 10 353 2948, E-mail: ailogairo@dist.unige.it);

October 23-26, 1994

* **ORSA/TIMS Joint National Conference, Emphasis: Building bridges between OR/MS theoreticians, practitioners and managers**, Theme: **Global Manufacturing in the 21st Century**, Detroit, Michigan, USA;

Information: K. R. Chelst, Industrial and Manufacturing Engrng., Engineering Building, Wayne State University, Detroit, MI 48202, USA (tel.: (313) 577-3857, fax: (313) 577-8833, E-mail: chelst@mie.eng.wayne.edu)

December 1994

* **2nd International Meeting on Systems Thinking, Innovation, Quality and Entrepreneurship**, Maribor, Slovenia;

Information: M. Rebernik, EPF, Univerza di Mariboru, 62000 Maribor, Slovenia (tel.: +62 28 261, fax: +62 27 056);

1995

* **11th EURO Summer Institute on Maintenance Replacement and Reliability Modelling**, UK;

Information: Prof. A. H. Christer, University of Salford, Salford M5 4 WT, UK (fax: +61 7 455 999);

March 20-24, 1995

* **4th IEEE International Conference on Fuzzy Systems and 2nd International Fuzzy Engineering Symposium**, Yokohama, Japan;
Information: Mieko Hemmi (Ms), LIFE, Siber Hegner Building 4FL 89-1 Yamashita-cho, Naka-ku, Yokohama, 231, Japan (tel.: +81 45 212 8268, fax: +81 45 212 8255);

July 3-6, 1995

* **EURO XIV Conference '95**, Israel;
Information: EURO Secretariat;

August 15-17, 1995

* **6th International Conference of the Chinese Special Interest Group on MCDM**, Beijing, PR China;

Information: Ku Chi-fa, Institute of Systems Science, Beijing, PR China (fax: +861 256 8364);

July, 1996

* **IFORS XIV**, Vancouver, Canada;
Information: Ifors Secretariat;



PROMOTING IN EUROPE THE INTERCHANGE OF PRACTICE IN OPERATIONAL RESEARCH MANAGEMENT SCIENCES AND SYSTEMS

EURO - Officers

President: F. Shutler, Monopolies and Mergers Commission, New Court, 48 Carey Street, London WC2A 2JT, UK (tel. Office: +44 71 324 1315 Home: +44 81 668 2104, fax +44 71 324 1736, E-mail: shutler@lse.ac.uk);

Immediate Past President: Jaap Spronk, Erasmus University, P.O. Box 1738, 3000 DR Rotterdam, Netherlands (+tel. 31 10 408 1282, fax +31 10 411 7558, spronk@hroeur5);

Vice President: Costas Pappis, University of Piraeus, Department of Industrial Management, 80 Karaoli & Dimitriou Street, GR-18534 Piraeus, Greece (tel.: Office: +30 1 42 22 060 Home: +30 1 94 22 052, fax: +30 1 41 79 064);

Vice President: Tuula Kinnunen, Turku School of Economics and Business Administration, Rehtorinpellonkatu 3, SF-20500 Turku, Finland (tel.: office: +358 21 6383 304 Home: +358 21 8696 76, fax: +358 21 6383 302, E-mail: tkin-nunen@finabo.abo.fi);

Secretary: Catherine Roucairol, Université Paris 6 et INRIA, Domaine de Voluceau, B.P. 105, Rocquencourt, F-78153 Le Chesnay, France (tel.: Office: +33 1 39 63 59 31 Home: +33 1 42 80 30 08, fax +33 1 39 63 53 30, roucairol@seti.inria.fr);

Treasurer: Jean Bovet, M.A.D., Route d'Oron 100, CH-1000 Lausanne, Switzerland (tel. +41 21 784 36 35, fax +41 21 784 36 55);

EURO Vice President of IFORS: Jakob Krarup, DIKU Univ. of Copenhagen, Universitetsparken 1, DK-2100 Copenhagen O, Denmark (tel. +45 35 32 14 50, fax +45 35 32 14 01, krarup@diku.dk);

Past Presidents: H. Zimmermann, B. Rapp, R. Tomlinson, J. Brans, B. Roy, D. de Werra, J. Krarup, J. Spronk.

National Societies or Individual members having news for the EURO Bulletin are requested to send their information to the editor: Ph. Van Asbroeck, 108 av. Sleafcx, B-1030 Brussels, Belgium (tel. & fax: 32 2 245 60 69). All recipients are free to copy the contents of the EURO Bulletin without charge and without requesting specific permission.

EURO - Members

Austria: Österreichische Gesellschaft für Operations Research (ÖGOR), c/o Institut für Ökonometrie, OR und Systemtheorie (Prof. G. Feichtinger), Technische Universität Wien, Argentinierstrasse 8, A-1040 Wien;

Belgium: Société Belge pour les Applications des Méthodes Scientifiques de Gestion / Belgische Vereniging voor Toepassing van Wetenschappelijke Methoden in het Bedrijfsbeheer (SOGESCI / BVWB), Renaissancelaan 30 Av. de la Renaissance, B-1040 Brussels, (tel. +2 735 5152, fax +2 733 6116);

Czechoslovakia: CSORS, Czech and Slovak Operational Research Society, Department of Operations Research and Econometrics, The School of Economics, Odbojarov 10, CS-832 20 Bratislava;

Denmark: Danish Operations Research Society (DORS), c/o Spadille Congress Service, P.O. Box 9, DK-3100 Hornbaek, (tel. +45 42 20 24 96);

Egypt: Operations Research Society of Egypt (ORSE), c/o Nasser Wahba, Centre for Middle East Management Studies, The American University in Cairo, P.O. Box 2511, Cairo;

Finland: Finnish Operation Research Society (FORS), P.O. Box 702, SF-00101 Helsinki 10;

France: Association Française pour la Cybernétique Economique et Technique (AFCET), 156 Boulevard Péreire, F-75017 Paris, (tel. 01-47662419);

Germany: Deutsche Gesellschaft für Operations Research (DGOR), Am Steinknapp 14b, D-4630 Bochum 1, (tel. +49 234 462246, fax +49 234 462245);

Greece: Hellenic Operational Research Society (HELORS), Solomou 20, G-11682 Athens, (tel.: 01-3619892, 01-3607532);

Hungary: Committee of OR at the Hungarian Academy of Sciences, Kende u. 13-17, P.O. Box 63, H-1502 Budapest, (Associate Member);

Iceland: Icelandic Operations Research Society (ICORS), University of Iceland, Faculty of Economics and Business Administration, IS-101 Reykjavik;

Ireland: Operations Research and Management Society of Ireland (ORMSI), c/o Stokes Kennedy Crowley, 1 Stokes Place,

St. Stephen's Green, Dublin 2 (tel. 735566);

Israel: Operational Research Society of Israel (ORSIS), c/o Faculty of Industrial Engineering and Management, Technion, Haifa, (tel. 04-292239);

Italy: Associazione Italiana di Ricerca Operativa (AIRO), c/o Signora Agnese Martinoli - Bagnasco, Via Serretto 1/4, I-16131 Genova, (tel. 39 10-3777703);

Netherlands: Netherlands Society for Operations Research (NSOR), c/o Dr. P. van Laarhoven, c/o McKinsey & Company, Amstel 344, NL-1017 AS Amsterdam, The Netherlands;

Norway: Norwegian Operations Research Society (NORS), c/o Polyteknisk Forening, Rosenkrantzgt. 7, N-0159 Oslo 1, (tel. 02-330741);

Poland: Polish Cybernetical Society, Technical University of Poznan, Inst. Automatyki, Piotrowu 3A, PL-60-965 Poznan, or ASPORS, IBS Pan, Newelska 6, PL-01-447 Warszawa;

Portugal: Associacao Portuguesa para o Desenvolvimento da Investigacao Operacional (APDIO), Cesur-Instituto Superior Tecnico, Av. Rovisco Pais, P-1000 Lisboa, (tel. 807455 / 882992, fax 809884);

South Africa: ORSSA, P. O. Box 3982, Johannesburg 2000;

Spain: Sociedad de Estadística e Investigación Operativa, Hortaleza 104 - 2 izda, E-28004 Madrid;

Sweden: Swedish Operations Research Association (SORA), FOA, S-172 90 Sundbyberg;

Switzerland: Schweizerische Vereinigung für Operations Research / Association Suisse de Recherche Operationnelle (SVOR / ASRO), c/o Ms T. Häring, Grossmattstrasse 38, CH-4133 Pratteln (tel. +41 61 821 4145);

Turkey: Operations Research Society of Turkey (ORST), Middle East Technical University, TR-06531 Ankara;

United Kingdom: Operational Research Society (ORS), Neville House, Waterloo Street, Birmingham B2 5tx, (tel. 021-6430236);

Yugoslavia: Yugoslav Society for Electronics, Telecommunications, Automation and Nuclear Engineering (ETAN), Kneza Milosa 9, P.O. Box 356, Belgrade.