

# EURO Bulletin

Bulletin of the Association of European Operational Research Societies (EURO) distributed quarterly through the National Societies and on INTERNET (EURO WWW server of the Université Libre de Bruxelles, URL = "http://www.ulb.ac.be/" and anonymous ftp server "ftp.ulb.ac.be" in the directory "/pub/projects/euro". Societies or individual members having news for the EURO Bulletin are requested to E-mail their information to the EURO Bulletin editor: EURO@ULB.AC.BE. Copy deadline for next issue: 15 September 1995.

from Immediate Past-President Maurice F. Shutler

## President's Report for 1994

**I** It is a great pleasure that I presenting my second report as President. The highlight of the EURO year was undoubtedly the EURO XIII conference held jointly with the UK OR Society. As a result more than 800 people attended, but the site absorbed them all in friendly fashion including two Gold Medallists this year, Jean-Pierre Brans and Laurence Wolsey to whom

I offer renewed congratulations. Our thanks then go to Valerie Belton and Denis Bouyssou for organising and programming respectively. Because the number of attendees was so much greater than expectations, the additional surplus has been used to subsidise the price of EURO XIV this year in Jerusalem. All in all a very successful and enjoyable conference.

At the same time we were negotiating with TIMS, (now INFORMS) concerning a protocol for the next three joint conferences starting with EURO XV in Barcelona in 1997. I am happy to say that the protocol was agreed after nearly two years of negotiations and many changes of officers. J. Barcelo will be Organising Chairman and Luis Tavares will be the EURO programme co-chairman, and the

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from Immediate Past-President Maurice Shutler

Spanish OR Society will kindly be our host.

EURO Summer Institutes are now rapidly catching up on EURO-k conferences in numbers since these may now be held in each two year period, one of which may be designated a "Winter" Institute. The tenth meeting in July 1994 was as successful as ever. The topic was Combinatorial Optimisation. Many thanks to Catherine Roucairol for organising it.

Our new instruments are more modest, since the best ideas were already thought of by presidential predecessors. Nevertheless the first and second of the Eastern European Conference initiatives are now proposed for Poland and Latvia and our General Support fund receives more applications than the money available. The money available has not diminished as expected because EJOR has maintained its enlarged size. It is the efforts of the editors therefore which continue to be means for supporting EURO's activities.

I am certainly among those who believe that if we are to be truly a Europe-wide organisation, then we do need to spend a high proportion of our income on events that bring our members together including meeting the expenses of speakers who could not otherwise travel, and those coming from Central and Eastern Europe who have foreign currency difficulties. In this context I would like to welcome as members the Czech, Slovak, Bulgarian and Croatian Societies.

A new source of income this year was the European Commission. Costas Pappis was successful in obtaining ECU 10.000 for publication of a European OR Handbook. Council voted a matching grant. The project is now in good progress.

One regret this year is that it has not been possible to organise a Up' Conference for 1996. It is hoped that this may be possible in 1997, even though the main aim was to hold such conferences in the year of an IFORS Conference.

## 94' President Report

The EURO Bulletin this year achieved another four solid issues and became available on Internet, and now reaches 650 people in hard copy from each quarter. Philippe Van Asbroeck combines the role of Editor of the Bulletin with that of Manager of our office, located at the ULB in Belgium. Smooth administration and good communications are vital to an organisation such as ours.

Our office now gives an air of permanence to what is in terms of its officers an otherwise ever-changing organisation. Each year we have elections now, so finally I have to thank those who have not yet been mentioned in this report - Tuula Kinnunen who continues for another term as Vice-President and Jean Bovet who retired as Treasurer at the end of 1994. It has been the efforts of all EURO officers which sustain our association and I know that Paolo Toth will be able to count on the same support which has sustained me for the last two years.

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EURO Office annual report

## EURO Office annual report July 1994 - June 1995

Since the last EURO Council meeting held in Glasgow on 19 July 1994, the effort to increase the distribution of the EURO Bulletin has been continued. At the present time more than 600 copies of the EURO Bulletin are mailed to: EURO Officers, Members OR Societies Presidents, Representatives and Alternates, Co-ordinators of each EURO Working Group, members of the EURO Working Groups having the EURO Bulletin as their own information bulletin (i.e.: EWG OR Applied to Health Services, EWG Locational Analysis, EWG OR network EURO's network for practitioners), EJOR Editors. Electronic mail and network information tools on Internet are used to complement the distribution of the EURO Bulletin which is now available on-line on the EURO World Wide Web server through the server of the University of Brussels, URL="http://www.ulb.ac.be/". Furthermore the EURO publications are also available on the anonymous ftp server "ftp.ulb.ac.be" in directory

"/pub/projects/euro". Any information, question or remarks will be welcomed at E-mail: EURO@ULB.AC.BE

The objective to produce four issues a year is fulfilled. Since the last EURO Bulletin report (presented in July 94) four issues have been edited, their contents are:

-Summer'94 (20 pages): Richard Nicholls on Marketing Operational Research, E.A. Field on EURO\_Start, Ph. Van Asbroeck EURO Annual Report July 93-June 94, F. Plaustria News from the EWG on Locational Analysis, Call for Papers, Events;

-Fall'94 (16 pages): Ph. Van Asbroeck EURO Bulletin is on Internet, Maurice Shutler Report of the EURO Council Meeting, A. Mercer, B. Tilanus and H.J. Zimmermann on EJOR, Zilla Sinuany-Stern on EURO XIV, Luk van Wassenhove on EURO Prize for the Best Applied Paper, Graham K. Rand on 1995 EURO Gold Medal, 12th EURO Summer Institute ESI XII on Locational Analysis June 17-30 1995 Puerto de la Cruz Tenerife Spain, A new EURO Working Group on GDSS, Costas Pappis on A Special Issue of The European Journal of Operational Research to celebrate EURO's 20th Anniversary, Events;

-Winter'94 (20 pages): Maurice

## EURO Office

Shutler on EURO's New Instruments, 1994 EURO Gold Medal J.-P. Brans on the Space of Freedom of the Decision Maker or Modelling the human Brain and 1994 EURO Gold Medal A. Wolsey on Progress with Single Item Lot-Sizing, Call for Papers, Catherine Roucairol Report on 10th EURO Summer Institute on Combinatorial Optimisation 2-15 July 1994 Jouy en Josas France, Events;

-Spring'95 (28 pages): T. Kinnunen «EURO Working Groups Annual Report (Multicriteria Aid for Decisions, Fuzzy Sets/IFSA European Chapter, OR Applied to Health Services, EUROBanking special interest group, Locational Analysis, ESIGMA EURO Special Interest Group on Multicriteria Analysis, Project Management and Scheduling, Financial Modelling, ECCO - European Chapter on Combinatorial Optimisation, Decision Support Systems, Transportation, Information Systems, OR network, Decision and Negotiation Support, Modelling of Economies and Societies in Transition, Mini EURO Conference, Ur' Conference in 1999, Co-operation of two OR Societies in the form of OR Conferences in Central and Eastern Europe, Call for Papers, Events.

Co-ordinated manuals for EURO

Officers and Guidelines for EURO Conferences have been issued and distributed to the EURO Officers.

An EURO Directory has been issued and is ready for distribution.

EURO and EWG stationery materials in different electronic file formats have been produced and distributed by electronic mail or electronic support.

In the framework of the EURO tentative to contact and make European Union aware of OR in general and EURO in particular, EURO Office has initiated contacts and succeeded to invite at EURO XIV a head officer from the European Union in charge of new ESPRIT Programme Technologies for Business Processes (Mrs Rosalie Zobel, Head of Unit European Commission Directorate III Industry). In agreement with the EURO President and the EURO XIV Chair. Zilla Sinuany-Stern and Roman Slowinski, Mrs Rosalie Zobel will present a paper at EURO XIV on Technologies for Business Processes. This will be also an opportunity for Mrs Rosalie Zobel to meet the European OR community.

EURO XIV - 14th European OR Conference - Jerusalem July 3 - 6, 95

## European Commission Official Representative at EURO XIV

" Why is Operations Research not very popular in practice? "

This was the subject of the last semi-plenary session of the Conference - given by Marc Salomon (Erasmus University Rotterdam, The Netherlands) and Charles Corbet (INSEAD, France).

These concerns of the OR specialists seem quite vital.

Academics are faced not only with the need to attract good students, but also with the difficulty to perform practical applications in a university environment.

OR practioners are faced with the competition with non OR management-consultants, who benefit from a fully recognised status.

The key problem of OR is well identified: " How is it possible to get public recognition by the different national and supranational authorities ? "

It is with the aim of meeting this concern that an official Representative of the European Commission - Dr Rosalie ZOBEL - was invited at the EURO XIV Conference by the executive Committee of EURO - Dr M.SHUTTLE - immediate past-President of EURO and Dr P. TOTH -President of EURO.

Dr ZOBEL is Head-Unit director of the Directorate - General III- Industry at the European Commission

(Commissioner Mr Bangeman). It is this Directorate which is in charge with one of the largest Programme of the 4th European Framework Programme (1994-1998) - " Information Technologies Programme " - formerly called the " ESPRIT " Programme.

The overall budget of this IT Programme is 1.9 Billion ECU's for the period 1995-1998 . The mission of the IT Programme is to finance research projects in the field of Information technologies (see Table 1), at a European level, setting up participations from different European countries (Switzerland and Israel being entitled to participate on a basis of national financial funding). In order to be eligible for European financing, a project applied for the IT Programme should involve a number of phases, from conceptual level to application and implementation of the application with a given user. Thus, such a project would link together 6 to 10 participants from different environments - academic R&D centers or University Departments, large compagnies, SME's, national companies, public authorities ...

Under the new IT Programme of the present 4th R&D Framework, a new action has been launched - covering " Technologies for Business Processes " or " TBP "-. This particular programme, for which Dr Zobel is in charge, is aimed to address business optimisation procedures which seem close to the problems /applications met by the OR specialists - tools for business modelling (enterprise engi-

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neering) such as process measurements, enterprise resizing methods, business performance metrics, enterprise systems management, planning for the development of human resources, ...

The invitation of Dr Zobel at the EURO XIV Conference offered her the opportunity to give a presentation - in a semi-plenary session- of the TBP Programme launched and managed by her department at the European Commission. Her presentation was attended by a large number of participants. This was the occasion for a number of OR specialists to meet her and discuss with her their concerns of being recognised and financed by a public authority, in particular at European level.

Anita Tenenbaum

TABLE 1: IT Programme Period 1995-1998, Overall Budget: about 1,900 Million ECUs, Distribution in %

Long-term Research	10
Components and Subsystems	25.5
Software Technologies	14
High Performance Computing and Networking	12.75
Technologies for Business Processes	8.75
Open Microprocessor Initiative	9
Multimedia Systems	8
Integration in Manufacturing	12

Calls for Proposals

	call date submission date	12/94 03/95	03/95 06/95	06/95 09/95	12/95 03/96	06/96 09/96	12/96 03/97
<b>Business Best practice Pilots</b>							
Definition Phase		X			X		
Full Pilots		X			X		X
<b>Enterprise Systems Integration</b>							
Op. Support for Business Enterprises				X		X	
Document Management				X		X	
Decision Support				X		X	
Heritage Systems				X		X	
Business Methodologies and Tools				X		X	
Metrics				X		X	
<b>Business Practice Network</b>							
Business Best Practice Network			X				X
Awareness Network		X					

Subject to change depending on the results

from E. A. Field, EURO Treasurer 1985-1990

## Attention s'il vous plaît, Is Fuzzy Science here to stay?

Whilst looking through some of my old reports I came across one that I had produced in 1983 on the subject of Intelligent Knowledge Based Systems (IKBS). At the time I had access to a number of detailed reports on the major research programmes being financed by governments in the UK, Europe, USA and Japan, and also found some 50 items in the literature that discussed aspects of IKBS. My report was prepared under a contract with a major international company that was seeking guidance on its investment into new computer technologies. My role was to place commercial value on a range of computer based products that the various research programmes recorded as their objectives. My specific findings must remain confidential, but there are some aspects of the work that I can comment upon.

Although Fuzzy Thinking was beginning to appear in learned papers in the 1960's, no mention was made of the subject in any of

the research programmes that I reviewed. However, I did pick-up the details of the Japanese 5th Generation Computer Systems and was able to draw conclusions concerning the potential value of its products. Twelve years on I can see that the Japanese met most of their objectives. Incidentally they are also in the vanguard of Fuzzy Control.

My generation was not taught Fuzzy Science at school or at university. When I visited Aachen in 1992 to conduct the EURO XI Audit, my interest in the subject was aroused. But it was after I read Bart Kosko's book on Fuzzy Thinking\*, that I really started to give the subject more serious thought.

The first question I asked myself was why an eminent body like the Royal Statistical Society, of which I am Fellow, appears to have ignored anything fuzzy? Here we have a group of people with superior knowledge of set theory missing the opportunity to absorb a new kind of thinking.

It was Max Planck, the German physicist who said:-

"A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its op-



E. A. Field

ponents eventually die, and a new generation grows up that is familiar with it".

Perhaps when Fuzzy Science is taught at school a new generation of statisticians will accept it as normal.

It was clear to me in 1983 that the absorption of the IKBS products on offer would differ between industries and between functions within industries. Estimates of commercial value needed to be very specific. Nevertheless there were common effects that bore upon each one. In particular the take-up of a product would be governed by the usual market considerations:-

- a) The need to target those decision makers who influence the purchase of new products
- b) Products must meet the perceived needs of users.
- c) Products need to be acceptable on any other criteria known to be important to the decision maker.
- d) There must be a low-key entry route into the user's organisation to minimise risk and gain acceptance.
- e) Continued support for product

is essential, with new releases provided to build confidence and encourage lasting user activity.

These same market considerations will also determine the spread of Fuzzy Products.

On a recent tour of Malaysia I viewed a TV programme in which an Asian philosopher was defending his view that most modern science is biased by the politicians who allocate expenditure through their control of national budgets. I agree with his view and would go further and say that most industrial science is controlled by time and budget considerations. Looking back over my career in industrial research there were many occasions when I was compelled to make decisions that lacked the crispness usually claimed for laboratory research. Thus I was exercising a degree of Fuzzy Decision Making that affected the space in which I was experimenting. If at the time I had been able to see each experimental situation through Fuzzy eyes might I have reached some different conclusions? I believe I might.

Most OR workers welcome new ideas and models. Its part of their discipline to seek out the best approach to solving a particular problem. I hope more of them take up Fuzzy Thinking.

E.A. Field

\*FUZZY THINKING,  
The new science of  
Fuzzy Logic, Bart  
Kosko, Harper-  
Collins, 1993.

## Call for Papers

## EJOR Special Issue on Artificial Intelligence Tools for Decision Support Systems

### Theme and purpose:

During the 70/80's, Decision Support Systems (DSS) became a key issue in real situations of management introducing a new domain of scientific research. The two main subjects explored in the existing literature are real case applications and software tools for the development of DSS. However, the necessity to enhance the potentialities of DSS and to improve their user friendliness requires several methodological innovations. A promising field in such a direction has been demonstrated to be in Artificial Intelligence which is now sufficiently mature to offer reliable and robust tools.

This special issue aims to present to the DSS community the potentialities of combining Artificial Intelligence tools and techniques with more traditional theoretical procedures for decision aid.

The special issue will have two separate parts:

1) methodologies of combining Arti-

ficial Intelligence tools in Decision Support Systems;  
2) real case applications of DSS using Artificial Intelligence techniques;

Papers are welcome when fitting in one of the following subjects:

- comparison of Artificial Intelligence tools and classical DSS techniques;
- composition of past, recent and potential applications and evaluations of the appropriateness of such applications;
- methodologies to design DSS's using AI;
- cognitive dimension of decision aid.

**Submissions must be sent by no later than the 2 October 1995 to the Guest Editors:**

Camille Rosenthal-Sabroux, Lamsade, Université Paris Dauphine, Place du Maréchal de Lattre de Tassigny, F-75775 Paris cedex 16, France (tel.: +33 1 44054724, fax: +33 1 44054091, E-mail: [sabroux@lamsade.dauphine.fr](mailto:sabroux@lamsade.dauphine.fr)) or Pascale Zaraté, Laforia, IBP, Boîte 169, Université Pierre & Marie Curie, 4 Place Jussieu, F-75252 Paris cedex 05, France (tel.: +33 1 44277002, fax: +33 1 44277000, E-mail: [zarate@laforia.ibp.fr](mailto:zarate@laforia.ibp.fr)).

EWG new Initiatives

## Studies in Locational Analysis Special Issue on Site Location from a Managerial Perspective

The focus of this special issue, which is planned to appear in early 1996, will be on site location from an economic and managerial viewpoint. This includes papers:

- (1) on the analysis of 'real life' site location problems, and method(s) for solving such problems;
- (2) posing appropriate models for site location decisions; however, the emphasis should be on the model's contribution to the managerial decision-making process rather than on purely mathematical aspects;
- (3) giving discussions on the managerial aspects of site location decision-making processes and how they differ from theoretical approaches used in mathematical algorithms to be implemented on a computer;
- (4) on site location and the impact of environmental issues, given that environmental considerations are becoming more prominent in the decision-making process.

You are cordially invited to submit, in triplicate, a paper for this special issue, by October 15, to either the Guest Editor Drs. Eddy Declercq, M.Sc., Policy

Research Corporation N.V., Jan Moorkensstraat 68, B - 2600 Antwerp (Berchem), BELGIUM or to the Series Editor: Dr. Brian Boffey, Statistics and Comp. Maths Department, University of Liverpool, Liverpool L69 3BX, UK.

To aid our planning it would be helpful if intending authors informed us of their intention as soon as possible

### Guide on Preparation of Manuscript

For each accepted paper the first page will be 'typeset' by the journal; all other pages will be reproduced photographically with a reduction to 70% of the original size. Authors should prepare their manuscripts bearing in mind the following points .

- (1) Page 1 must contain only: the title of the paper; author name(s) and affiliations; abstract; key words (optional).
- (2) Papers should normally not be more than 15 A4 typescript pages with at least 1 inch (2.5 cm) borders all round.
- (3) 1 ½ spacing and 12 point characters preferred.
- (4) Main section and subsection headings in boldface type preferred.
- (5) Figures should be carefully prepared and positioned in the text where they are to appear. Attention should be paid to the size of the diagrams and to lettering because of the photographic reduction in size (to 70% of original).
- (6) For the style for references authors may consult the European O.R. Journal.
- (7) Papers should be submitted in triplicate.

## 14th EURO Summer Institute - ESI XIV, First Announcement

**14th EURO Summer  
Institute - ESI XIV,  
Piraeus, Greece,  
June 7 - 21, 1996  
Theme: Environ-  
mental Planning**

**ADMITTANCE**

Limited to 20 young scientists (age  $\leq$  35) from different European countries.

**ACTIVITIES**

Each participant will present a research paper on a topic within the theme. In addition to these activities, the Scientific Committee will also organise lectures by invited experts. A special issue of EJOR (European Journal of Operations Research) will be prepared based on papers presented at the Institute. To facilitate network building among the participants, the Organising Committee will prepare a rich and varied social program.

**LOCATION - ACCOMMODATION**

Scientific activities and accom-

modation will be sited on the beautiful port of Piraeus, a few kilometres from Athens. Free accommodation and registration will be provided for the selected participants.

**APPLICATIONS**

Applicants should submit their curriculum vitae together with an unpublished paper within the theme of the Institute to their national OR society. **The societies will select their national candidates and submit their applications to the organisers of ESI XIV before March 1st, 1996.** The final choice will be made by the Scientific Committee and the selected candidates notified by April 1st, 1996.

**INFORMATION**

Available from the Organising Committee in the following address:

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