

Bulletin

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Special issue devoted to the EURO Working Groups 1999 activity report

Edited by Raymond Bisdorff

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EURO Working Groups: a contact forum for OR researchers

The European OR research community, regrouped as national OR societies under the EURO label, has a long tradition in organising European working groups on practically all topics relevant in the OR field. By looking twenty-five years back now, we may notice that the very first EURO Working Groups: Multicriteria Aid for Decision (MCDA), OR applied to Health Services and EUROBANKING still remain active and have contributed during their lifetime to major developments of the respective scientific fields. Both groups held recently their 25th anniversary meetings.

The EURO actually hosts 21 groups. These facts reveal that the original initiative to install such an organisational framework in the context of EURO has proven to be a successful one. The major reasons of the success are being found on the one hand in the presence of the EURO Working Group co-ordinators. By their personal effort to motivate and organise the activities of their respective groups, they contribute in an essential way either to the organisation of special sessions in conferences and/or to the publication of OR relevant papers in special issues of the European Journal of Operational Research or other OR-related journals.

On the other hand, individual members of an EURO WG may find an opportunity to meet on a regular (at least annually) and somehow informal basis apart from the traditional conferences and their necessary short communications. During these meetings, they may exchange with people interested in a same OR topic, ideas, experiences and ongoing research results before actual publication. Fruitful European research partnership so emerged.

Some EWGs contribute actively to a Mini-EURO Conference as it was the case with the 11th Mini-EURO Conference on "Artificial Intelligence in Transportation Systems and Science" hosting conjointly the 7th Meeting of the EURO Working Group on Transportation. This conference is organised by the department of Transportation Engineering, Helsinki University of Technology, in Espoo, Finland, August 2-6, 1999.

The 10th Mini-EURO conference on "Human Centered Processes" which took place in Brest (France) on September 22-24, 1999 has given birth to a new EURO Working Group with the same name.



Why not join a EURO Working Group?

The active EWGS

At the moment, EURO has 20 active Working Groups (in the order of establishment, with the year in brackets):

- **1** MCAD, Multicriteria aid for decisions (1975)
- **2** EUROFUSE, Fuzzy sets (1975)
- **3** ORAHS, OR applied to health services (1975)
- **4** EUROBANKING, Special interest group in banking (1975)
- **5** EWGLA, Locational analysis (1984)
- **6** ESIGMA, Special interest group on multicriteria analysis (1985)
- 7 Project management and scheduling (1986)
- 8 Financial modelling (1986)
- **9** ECCO, European Chapter on combinatorial optimisation (1987)
- 10 DSS, Decision Support Systems (1989)
- **11** Transportation (1991)
- **12** Group decision and negotiation support (1995)
- **13** MODEST , Modelling of economies and societies in transition (1995)
- **14** WATT, Working group on automated time tabling (1996)
- **15** Environmental planning (1996)
- **16** PAREO, Parallel processing in operation research (1997)
- **17** DEAPM, Data envelopment analysis and performance measurement (1997)
- **18** DDM, Distributed Decision Making) (1997). (formerly, HOP, Hierarchical organisational planning
- **19** Methodology on Societal Complex Problems (1998)
- **20** COWG, Continuous Optimisation Working Group (1999)

A new group, HCP, Human Centered Processes (2000), will be starting its activity at the occasion of the EURO'2000 Conference in Budapest.

Detailed information on all EURO Working Groups can be found on the following pages and on the Internet address: (http://www.ulb.ac.be/euro/euro_working_groups.html).

For the members of the groups the framework EURO is providing means a chance to meet regularly (at least annually) people who are interested in the same OR topic in order to exchange ideas, experiences and research results and a chance to find a counterpart abroad to do research together. The efforts of co-ordinators and meeting organisers to build an open and friendly atmosphere in the meetings bear fruit; co-operation in the groups is smooth and the personal relations of the group members can be described best with the word friendship. While the EWGs organise sessions in conferences, publish special issues of the European Journal of Operational Research or other OR-related journals and organise conferences, the co-operation in the EWGs means better and bureaucratically easier chances for the group members to make public the results of their work.

For the groups the fact of being a EURO Working Group means organisational and financial support of EURO. Firms can find an ideal partner from EWGs when they wish to co-operate with researchers from universities or other research establishments. With these partners firms can form a research project for which additional finance could be applied e.g. from the European Union under its research programs. (Members planning such a project and support are advised to contact the secretariat of EURO)

For EURO the EWGs mean continuity in research and in contacts to the field of research. The EWGs are a very important part of EURO and the work of the co-ordinators and the members of the groups is very well respected and appreciated.

If you want to get more information about a EURO Working Group or to join one, contact either the co-ordinator of the group or the second vice-president of EURO.

EURO Bulletir

How to create a EURO Working Group?

If a group of researchers and/or practitioners cannot find an established EURO working group with the OR-topic that interests them, it is possible to apply from the EURO Executive Committee for the EURO Working Group status. There are certain requirements that such a group has to meet:

- **1.** The EWGs should as far as possible bring together people with different professional backgrounds mixing of possible research, education and OR practice.
- **2.** The group should have ideally have an European membership. This requirement is met if at least 4, but possibly 5 or 6 European countries are represented at each meeting and if the meetings do not take place too often in the same country.
- **3.** Any group should be open to any individual member of any EURO member society. In some exceptional case also persons that are not members of a national OR society can be accepted.

Becoming a EURO Working Group brings duties and advantages to the group. One of the duties is that the co-ordinators of the EWGs have to report yearly on their activities to EURO. (See the reports hereafter). One of the advantages is that the group obtains organisational support from EURO. EURO K conferences provide time and space for the meetings of the EWGs and the meetings can be set

within the framework of the conference itself. Nowadays several EWGs organise their meetings on the day(s) before an EURO K conference starts, or on the day after it finishes. EURO also supports EWGs by offering an opportunity to use the EURO Bulletin as the group's newsletter. Another advantage is that an EWG obtains financial support from EURO. Financial support can be granted e.g. for printing costs of common stationery, for administrative costs in the establishment of a new EWG and occasionally for meeting expenses, such as those of guest speakers or for some specific colloguium or seminar. More details on the organisation and activities of EWGs are stated in the charter of the EURO Working Groups; see Internet: http://www.ulb.ac.be/euro/euro_brochure.html.

Tittp://www.uib.ac.be/euro/euro_brochure.fitfill.

More information about Working Groups can be obtained from EURO. The EURO-officer in charge of Working Groups is the second vice-president:

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MCAD, Multicriteria aid for decisions

Co-ordinator

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Purpose and History

Multicriteria decision aid is an important branch of Operational Research. Beyond the exchanges and meetings which already exist by means of the international conferences and the publications in the scientific journals, the objectives of the working group are the following:

- to contribute to the development, at a European level, of an original way of thinking in the field of multicriteria decision aiding;
- to allow each member of the group to make to others methodological, theoretical or applied results, to submit its own work and thoughts to the critical discussion of the group and also to facilitate some collaborations;
- to develop multicriteria aid for decisions by facilitating contacts with every people interested in the subject and by stimulating continuity and progress in exchanges and work;
- to keep the group alive and open by means of biannual meetings which must not be mini-conferences but real meetings favourable to exchanges and to emergence of new ideas.

The working group was created at EURO I (Brussels, 1975). Since that time, two meetings are held each year, in Spring and Autumn. The 51 meetings have been organised by 15 different countries.

Number of Members

Approximately 350. In 1975, the group consisted of 29 members divided into 5 different countries. Among the present members, 42 were already members in 1980. At this period, 23 countries

were represented. During these last years, each meeting induces 5 to 20 new members (with an average of 13). These figures show how the group is alive, to the biological sense of the term.

Newsletter

2 issues per year. Editor: Joao Climaco, INESC, Rua Antero de Quental 199, P-3000 Coimbra, Portugal.

Activities 1999

The 49th meeting

Milano and Como, Italy, March 18-19, 1999. Organisers: Alberto Colorni, DEI-CESTIA, Politechnico di Milano; Alexis Tsoukiàs, LAMSADE, Université Paris-Dauphine.

The 50th meeting

Cerisy-la-Salle, France, Septembre 28 October 2, 1999. Organizers: Denis Bouyssou, ESSEF, Bernard Roy, Alexis Tsoukiàs, Daniel Vanderpooten, LAM-SADE, Université Paris-Dauphine.

Future Planned Activities

The 51st meeting

Madrid, Spain, March 30-31, 2000. Organizers: Gabriela Fernandez Barberis, Universidad San Pablo-CEU de Madrid, Javier Montero, Universidad Complutense de Madrid, Carmen Escribano Rodenas, Universidad San Pablo-CEU de Madrid, Jacinto Gonzalez Pachon, Universidad Politecnica de Madrid.

The 52nd meeting

Vilnius, Lithuania, october 5-6, 2000. Organizers: H. Pranevichius, Kaunas Technical University, L. Sakalauskas, Institute of Mathematics and Informatics, E. Zavadskas, Vilnius Gediminas Technical University, A. Kaklauskas, Vilnius Gediminas Technical University.

EUROFUSE, Working Group on Fuzzy sets

Co-ordinators

EUROFUSE has two co-ordinators, expressing the desire to have a representation from both Western and Eastern Europe. Either one of them can be contacted concerning membership, proposals for activities, etc.

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URL: http://www2.univet.hu/~jfodor

Web site

A web site has been installed at the URL: http://allserv.rug.ac.be/~bdebaets/eurofuse.html

Purpose and History

Although fuzzy logic and fuzzy set theory cover much wider subjects than operational research itself, it has nevertheless several important connections with OR (for instance, in the fields of mathematical programming, preference modelling and its applications in multi-criteria decision aid, representation and exploitation of non-stochastic types of uncertainty, etc.). The purpose of EUROFUSE is to communicate and to promote the knowledge of the theory of fuzzy sets and related areas and their applications.

The working group was created at EURO I (Brussels, 1975). In 1985, the group constituted

itself as the European Chapter of IFSA, the International Fuzzy Systems Association. From 1975 to 1979 it was run by H.-J. Zimmermann, from 1979 until 1986 by C. Carlsson, from 1986 until 1993 by M. Roubens, and since then by H. Hellendoorn. It has been more or less inactive since its last meeting in Hungary (Visegrad, 1990). In the beginning of 1998, two new coordinators were appointed and the working group was brought back to life under the name EUROFUSE. At the same time, as IFSA is no longer composed of chapters, EUROFUSE no longer represents the European Chapter of it. In 1999, EUROFUSE has joined EUSFLAT, the European Society for Fuzzy Logic and Technology, as the Working Group on Operations Research.

Number of Members

EUROFUSE currently has 187 members from 37 countries.

Activities 1999

Events

- EUROFUSE-SIC '99 (Budapest, Hungary, May 25-28, 1999): Joint Fourth Meeting of the EURO Working Group on Fuzzy Sets and Second International Conference on Soft and Intelligent Computing (chairs: B. De Baets, J. Fodor and L. Koczy)
- EUROFUSE sessions at the Joint EUSFLAT-ESTYLF Conference (Palma de Mallorca, Spain, September 22-25, 1999)

Publications

- Proceedings of EUROFUSE-SIC '99 (ISBN 963 7149 21X) (B. De Baets, J. Fodor and L. Koczy, eds.)
- Special Double Issue of JORBEL Belgian Journal of Operations Research, Statistics and Computer Science (B. De Baets and J. Fodor, eds.), Vol 38 (No 2-3)

Activities 2000

At the EUROFUSE business meeting in Budapest on May 26, 1999, it was decided that the format of future working group meetings would be smallscale, focused on a particular topic. **Events**

- EUROFUSE Workshop on Scheduling and Planning (Mons, Belgium, March 31 April 1, 2000), Fifth Meeting of EUROFUSE
- EUROFUSE sessions at various conferences:
- Fifth International Conference on Fuzzy Sets Theory and Its Applications (Liptovsky Mikulas, Slovak Republic, January 30 - February 4, 2000)
- Third International Workshop on Preferences and Decisions (Trento, Italy, June 8-10, 2000)
- Eighth International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (Madrid, Spain, July 3-7, 2000)

- 17th European Conference on Operational Research (Budapest, Hungary, July 16-19, 2000)

Publications

■ Special Issue of EJOR (B. De Baets, J. Fodor and Ph. Fortemps, eds.) on Fuzzy Sets in Scheduling and Planning (in preparation)

Activities 2001

Events

- EUROFUSE Workshop on Preference Modelling (Granada, Spain), Sixth Meeting of EUROFUSE
- EUROFUSE sessions at various conferences

ORAHS, OR Applied to Health Services

Co-ordinator

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Purpose and History

A network of persons involved in the application of systematic, quantitative analysis in support of planning and management in the health services sector.

The EURO Working Group on Operational Research Applied to Health Services was formed in 1975 as part of a programme for developing special interest groups within the European branch (EURO) of the International Federation of Operational Research Societies (IFORS).

Membership is open to persons with an interest in applying systematic, quantitative analysis to planning and management problems in the health area

Operational Research (OR) is systematic, quantitative analysis in support of rational policy and decision making. This umbrella concept of operational research covers many analytic approaches and methods, such as simulation modelling, mathematical programming, decision analysis, cost effectiveness analysis, development of indicators, and methods for forecasting, monitoring and evaluation.

The objectives of the group are:

- communication of ideas, knowledge and experience concerning the application of OR approaches and methods to problems in the health services area;
- co-operation on the form of mutual assistance between members or on joint projects;
- inspiration with regard to approaches and attitudes in the field of applied OR.

Number of Members

The group has at present 112 members from 22 countries, mainly in Europe but also with 17 from overseas.

Activities

The group meets every year, each summer, for one week in a different European host country. In 1998 the group met in Rome, and the proceedings (edited by Vanda de Angelis, Nicoletta Ricciardi and Giovanni Storchi) have been published (ISBN 981-02-4154-2). In 1999 the meeting was held in Valmiera, Latvia, organized by Eriks Mikitis; the proceedings of this meeting are in the process of being published.

Meetings are open to anyone with a quantitative background and an interest in the subject area, although numbers may be restricted to ensure that open debate is practicable. During the meetings, papers are presented and discussed, computer applications demonstrated and decisions regarding group affairs prepared and taken.

Associated with the meetings, study tours to local healthcare facilities are arranged with opportunities to discuss planning and management problems with local health services managers. A well-developed social programme gives good opportunities for informal discussions and friendly get-togethers with members and accompanying families.

Papers presented at the meetings cover a range of different projects, approaches and methods. Studies at strategic, operational and tactical levels have included the planning of health services systems, resource allocation, investment analysis, manpower planning, admission planning, staff scheduling, performance measurement, quality assurance and the use of information systems to

improve decision support. The proceedings of the meetings are often produced as a publication. Besides the annual meetings, the Working Group also engages in different joint projects and activities.

To facilitate contacts and co-operation, a register of members is kept, which gives addresses, telephone and fax numbers and also notes on research interests and relevant published work.

Some years ago the Working Group through its then chairman Duncan Boldy, produced a 'state of the art' book on the subject of 'OR applied to Health Services' (Croon Helm 1980). A recent book entitled 'Enhancing Health Services Management' (Open University Press, 1997) has been edited by two members of the group, Steve Cropper and Paul Forte, and many of the chapters were contributed by other members. The Working Group has also jointly produced a series of management courses and seminars in different countries on decision support for managing change in Health Care.

Future Planned Activities

In 2000 the annual meeting of the working Group will take place in Glasgow, Scotland, from July 31st to August 4th, Glasgow Caledonian University. Jackie Riley is the organizer (jri@gcal.ac.uk). The theme of the meeting is 'Planning for the future: Health, Service Quality and Emergency Accessibility. A conference website is in construction. An extra meeting is held later this year in Perth, Australia, from October 29th to November 3rd, to celebrate the 25th anniversary of the Working Group. Duncan Boldy, first chairman of the Working Group, will be the organizer (Dboldy@health. curtin.edu.au). Preliminary arrangements for meetings have been made for 2001 (Vienna, organizer: Marion Rauner, marion.rauner@univie.ac.at) and 2002 (Brazil, organizer: Mario Jorge Ferreira de Oliveira, mario jo@pep.ufrj.br).

More information on these future activities but also on the past meetings can be found via the website of the Working Group:

http://www.soton.ac.uk/~orahsweb

EUROBANKING, special interest group in banking

Co-ordinator

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Purpose and History

The group was set up in 1975 in Brussels as The European Working Group on Operational Research in Banking at the EURO 1 Conference sponsored by the International Federation of Operational Research Societies (IFORS). Since renamed Eurobanking, the group has arranged 27 meetings at which over 700 papers have been presented and discussed.

The purpose of the group is to provide a forum for professionals in European banks to exchange and discuss ideas about the techniques, experience, philosophy and application of operational research and other quantitative and analytic techniques to bank management. It is also a forum for promoting wider understanding of these approaches amongst management, and meetings also include sessions devoted to broader strategic issues facing European banks at which distinguished external speakers are invited to present their views.

Number of Members

Over 100.

Activities

The group holds an annual meeting which is limited in size to a maximum of about 75 participants to ensure active participation and involvement of those attending. Some 35 papers are presented over three days in a number of workshops.

The group organizes itself on a voluntary basis through a network of National Coordinators, one for each of the 22 countries currently represented in the group. A different country hosts the meeting each year, and the National Coordinator of the host country normally acts as the Chairman. There is no formal central resource, though one of the members is acting as Secretary General to the group for a number of years to provide a focal point and continuity. National Coordinators meet with the Chairman and the Secretary General twice a year as the Executive Committee. National Coordinators act as contact points, coordinators of the views, ensures of quality, and representatives of their country.

Future Planned Activities

The next EUROBANKING meeting will be held in Prague, May 9-12, 2000 The meeting is hosted by IPB. Bank of Ireland will host the 2001 meeting in Ennis, Ireland.

EWGLA, Locational analysis

Co-ordinator

Frank Plastria

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Past co-ordinators

P. Hansen and J.-F. Thisse, 1984-1985 C. Michelot, 1985-1994

Website

http://www.vub.ac.be/EWGLA

Purpose and History

EWGLA is a Working Group devoted to Locational Analysis within EURO, the European Association of National Operations Research Societies. It was born during the first EURO Summer Institute, held at Brussels, July/August 1984, devoted to the subject of Location Theory. The main aim of starting up the Working Group was to provide a network of people working together and to keep continuity in the exchanges between the Summer Institute's participants. Since that time the group has known important growth and broadened its scope and purpose. Friendship among its members continues however to play an important role.

The subjects of interest to the group are of many kinds, centering on the optimal choice of locations for one or more objects (usually called facilities), within any framework (the classical settings being discrete, network and planar). Many other fields have direct connections, either by subject or as techniques, such as transportation and routing problems, statistics, cluster analysis, mathematical (linear, integer, non-linear, convex, global, ...) programming, multicriteria analysis, approximation theory, computational geometry, ...

EWGLA has become a vehicle of communication between all persons interested in Location and

related topics in Operations Research in Europe and abroad. The major goal is to stimulate the exchange of information and collaboration in research and applications, and to promote the ideas and methods developed within the field. Several instruments are used to this end.

The group holds yearly meetings organised by one of its members (see meetings section). Anyone interested in presenting their work, participating in the discussions, or more simply learning and/or consulting about the subject of locational analysis may join the group and its meetings; their participation will be greatly appreciated. Either theoretical contributions (concepts, methods, ...) or applied research, presentation of software, are welcome. Communications, discussions or surveys on new applications, open problems, connections between the field of location theory and related areas are of interest. These meetings have always been an enjoyable and very friendly come together of a relatively small group stimulated by their common centre of interest. Refereed proceedings of each meeting are published, and provided free of charge to the participants.

Meetings

EWGLA1	Nov. 27-28 , 1985, Dijon, France.
	Org. R. Durier and C. Michelot
EWGLA2	Oct 9-10, 1986, Herceg-Novi,
	Yugoslavia, Org. N. Mladenovic
	and J. Petric
EWGLA3	Sept 21-24, 1988, Sevilla, Spain.
	Org. B. Pelegrin and F. R. Fernandez
EWGLA4	July 3-6, 1989, Chios, Greece.
	Org. B. Boffey and J. Karkazis
EWGLA5	Sept 3-6, 1990, Namur, Belgium.
	Org. F. Orban-Ferauge and J. P. Rasson
EWGLA6	April 20-25, 1992, Puerto de la Cruz,
	Spain. Org. J. M. Moreno
EWGLA7	May 9-11, 1994, Brussels, Belgium.
	Org. F. Plastria
EWGLA8	Sept 24-28, 1995, Lambrecht,
	Germany. Org. H. Hamacher and
	S. Nickel
EWGLA9	Sept 5-8, 1996, Birmingham, United
	Kingdom. Org. S. Said and B. Boffey

EWGLA10 Feb 10-13, 1998, Murcia, Spain. Org. B. Pelegrin

EWGLA11 ISOLDE VIII (triannual International Symposium On Locational Decisions), June 23-29 1999, Coimbra/Estoril (Portugal). Org. J. Coutinho-Rodrigues

and A. Antunes

Number of Members

in 1999: 125 (see the full list on our website).

Newsletter and Communication

Communication within the group is achieved in three ways: the newsletter, the list-server and the homepage.

The first vehicle is the EURO Bulletin, playing partly the role of newsletter for the group, and sent to all EWGLA-members.

A second and more direct way of communicating was established by the ewgla list-server. Any message sent to ewgla.dee@llis.upf.es by a member of this e-mail discussion group is bounced to all other members. Regularly messages are sent around concerning conferences, new publications and other information related to and/or of interest to the members. The become a member of this list send contact daniel.serra@econ.upf.es.

The third contact-point is the WWW site, started as a means of promotion, communication and an open entry point to anyone interested in the topic of location. EWGLA is now public on the World Wide Web at URL:

http://www.vub.ac.be/EWGLA/homepage.htm

The aim is to make this homepage into a tool for first contact and/or entry in the field, for researchers working in the field, and last but not least for anyone in need of information on the field of location analysis in view of applications.

Anyone interested in detailed and/or up to date information around Locational Analysis and EWGLA is advised to check this site.

A request form to become a member to EWGLA is available on this site, or directly from the group's coordinator.

Activities 1999 EWGLA 11 - ISOLDE VIII

Since this year the triannual International Symposium On Locational Decisions, took place in Europe during the summer, more precisely on June 23-29 1999, in Coimbra and Estoril, Portugal, it was decided not to hold another separate meeting of our group the same year. Therefore this worldwide meeting on location theory and applications has also played the role of eleventh EWGLA meeting, in which most of our members took an active part. The organisation was done by Antonio Antunes, Joao Coutinho-Rodrigues, (Coimbra, Portugal), Erhan Erkut, Susan Neuman (Edmonton, Canada) and John Current (Ohio, USA).

Some 110 researchers from all over the world (some 70 from Europe) participated in this fantastic one week event. The three first days took place in the ancient university city Coimbra and included a memorable trip to Porto and its port wine cellars. On the scientific-sunday-off the move over Castelo de Vide was made to the famous beach resort Estoril. Here the last three days of scientific acitivities took place, with another nice trip to continental Europe's westmost point at Capo de Vide and the medieval town Sintra.

Almost 100 scientific talks were given on virtually all fields in and connected to location theory. These enabled all old and young location researchers a complete and thorough updating of what goes on worldwide in the location field. Most importantly, however, the meeting gave all participants the possibility to meet in person many coworkers in their field, and afforded ample time to make or remake contact, to exchange old and new ideas, to start up, move on and/or finish common research.

Future Planned Activities

The next meeting EWGLA12 will take place on december 14- 17, 2000 in Barcelona, Spain, organised by Daniel Serra. Check the website: http://www.econ.upf.es/~serra/ewgla.html

The proceedings of the EWGLA 10 meeting in Murcia will be available as Issue 14 of the Studies in Locational Analysis, to appear during the second quarter of 2000. Check the website: http://www.vub.ac.be/EWGLA/STUDIES/main.html

ESIGMA, Special interest group on multicriteria analysis

Co-ordinator

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Purpose and history

At the end of the Second EURO Summer Institute (Brussels, July 1985) devoted to Multicriteria Analysis, the participants expressed a strong interest in continuing to work together. This was the result of three weeks of fruitful and friendly collaboration. So, the idea was born to create a new working group on Multicriteria Analysis. Up to 1997, the working group met on either the day before, or the day after, the annual EURO Conference. In years in which there was no EURO meeting (i.e. when the triennial IFORS conference takes place), another time is chosen, usually in association with our sister working group on Multicriteria Aid for Decisions. At the 1997 working group meeting, it was agreed to integrate meetings of ESIGMA as a special stream within the EURO meetings, and the first meeting with this format is in 1998 at the Brussels meeting.

One of the characteristic features of the ESIGMA meetings is the use of "oriented discussion sessions", rather than the regular paper presentation format. An invited speaker makes a presentation on a (preferably controversial) topic, after which a few invited discussants introduce areas of debate, controversy or discussion. The floor is then open to all delegates to share their views or to pose key questions. It is usual for the discussion to continue for longer than the original presentations.

The following is the full list of meetings of ESIGMA and the respective organisers:

- 1st Lisbon, Portugal, September 19-20, 1986 (Carlos A. Bana e Costa)
- 2nd Brussels, Belgium, March 25-26, 1987 (Philippe Vincke)

- 3rd Paris, France, July 6-8, 1988 (Denis Bouyssou and Daniel Vanderpooten)
- 4th Belgrade, Yugoslavia, June 25-26, 1989 (Serafim Opricovic, DjuraKutlace, and Olga Memedovic)
- 5th Athens, Greece, June 24, 1990 (Denis Yannacopoulos)
- 6th Aachen, Germany, July 16, 1991 (Brigitte Werners)
- 7th Helsinki, Finland, June 28, 1992 (Pekka Salminen and MariPoeyhoenen)
- 8th Lisbon, Portugal, July 11, 1993 (Carlos A. Bana e Costa and Jose F. Rafael)
- 9th Glasgow, Scotland, July 23, 1994 (Valerie Belton)
- 10th Jerusalem, Israel, July 7, 1995 (Zilla Sinuany-Stern and Lea Friedman)
- 11th Brussels, Belgium, October 1996 (Philippe Vincke).
- 12th Barcelona, Spain, July 1997 (Theo Stewart)
- 13th Brussels, Belgium (as a stream of sessions in EURO XVI), July 1998 (Theo Stewart)

Number of Members

248 (Number listed in 1998; membership lists are being revised at this time)

Newsletter

2 issues per year.

Activities 1998

As indicated above, the 13th meeting of ESIGMA was integrated as a special interest stream within the EURO XVI conference, presented during the Tuesday (14 July). The following were the activities on that day:

Tutorial Session

What should we learn (and teach) from real world decision aiding cases? (Alexis Tsoukias)
Abstract: The session was an open discussion around a short presentation touching the following questions.

- 1. Is it possible to identify any regularities in a decision aid process which could be used as a teaching basis?
- 2. Are there any questions that regularly return in the interaction client analyst and which can be used for training purposes?
- 3. What does it mean in real world decision aiding meaningfulness of the information and correctness of the procedures?
- 4. What experienced analysts learn in real world cases? How do they use validation?

ESIGMA Semi-plenary session

Some thoughts on future trends in MCDS (Pekka Korhonen)

Abstract: In this paper, our purpose is to outline some personal views, where we are, where we are going and where we could go. At this moment, our field is scattered into many pieces. It is richness - of course, but on the other hand it does not provide with young scientists with clear guidelines how to enter the field. That's why it is important that "senior" scientists will discuss possible future trends of our research area. In this spirit, we will discuss new promising research areas like DEA (=Data Envelopment Analysis), a need to understand more about the behavior of human being, possibilities to utilize modern computer technology, network-centric decision making environment, etc. Our main purpose is not to cover all possible future directions, but to raise some issues which we consider important.

ESIGMA oriented discussion session on Future trends in MCDS

Following the practice with ESIGMA meetings, this was an open discussion session, continuing on from the topics covered in the semi-plenary session given by Pekka Korhonen.

The discussion was introduced by short presentations from:

Christer Carlsson, who attempted to place MCDA/MCDS within the broader contexts of intelligent systems and soft computing;

Jyrki Wallenius, who spoke of links between MCDA and negotiation, and identified many indirect applications of MCDA in for example telecommunications, marketing, trading, etc., even though direct mention of MCDA was not always made; Carlos Bana e Costa, who covered a number of issues including (a) that many applications of MCDA are not published; (b) the need for simplicity in approach which does not mean ignoring theoretical foundations; and (c) the need to match the theoretical characteristics of different methodologies to the characteristics of real-world contexts.

Future Planned Activities

As 1999 is an IFORS year, there is no EURO meeting at which ESIGMA would usually meet. It has been the tradition in previous IFORS years out of Europe to combine an ESIGMA meeting with the autumn meeting of our sister working group on Multicriteria Aid for Decisions. This turned out to be infeasible for 1999, as the other working group was arranging a special anniversary session in a castle with limited accommodation, so that the ESIGMA group could not officially participate (although there is a substantial overlap of membership so that many ESIGMA members will undoubtedly be present).

The two working groups have, nevertheless, collaborated in organizing a stream of sessions on MCDA/MCDM at the IFORS meeting in Beijing in August. This is planned to include 13 sessions, including an oriented discussion session on a Cross-Fertilization of MCDA Methods.

A full ESIGMA meeting will again be planned to coincide with the EURO meeting in 2000.

Project Management and Scheduling

Co-ordinator

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Purpose and History

The EURO Working Group on Project Management and Scheduling has been established by Prof. Luís Valadares Tavares and J. Weglarz during the EURO VIII Conference, Lisbon, September 1986. It was decided to organize a workshop every two years. Gathering most promising theoretical and applied advances in Project Management and Scheduling to assess the state of the art of this field and its potential to support Management systems is the objective of these workshops.

The first workshop was held in Lisbon in July 1998, organized by L.Tavares. It gathered sixty participants from 16 countries. A special issue on Project Management and Scheduling was published by EJOR including selected papers from this Workshop (November, 1990). The second workshop was organized by J. Carlier in Compiègne, France in 1990. The third workshop was organized by Prof. Carlo Vercellis in Como, Italy in 1992. The fourth workshop took place in Leuven, Belgium in 1994 and was organized by Prof. Willy Herroelen. The

fifth was held in Poznan and organized by Prof. Weglarz. The last workshop was organized in Istanbul, by Prof. G.Ulusoy, July 1998.

Number of Members

190

Activities 1998

6 th worshop PMS in Bogazici University, Istanbul, July 7-9. 1998 and special sessions at EURO XVI, Bruxelles, July, 1998.

Future Planned Activities

7th Workshop, PMS 2000, April 17-20 Osnabrück, Germany, to be organized by Prof. Peter Brucker.

Important Dates

Abstract submission: September 15, 1999 Notification of acceptance: November 1, 1999 Workshop registration deadline: December 15, 1999

Further information

E-mail: pms2000@mathematik.uni-osnabrueck.de/research/OR/pms2000/http://www.mathematik.uni-osnabrueck.de/research/OR/pms2000/



Financial modelling

Co-ordinator

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Purpose and History

The EURO Working Group on Financial Modelling was founded in September 1986 in Lisbon. The primary field of interest for the working group can be described as "financial models that help to solve problems faced by financial managers in the firm". From this the following objectives of the working group are distinguished:

- providing an international forum for exchange of information and experience on financial modelling;
- encouraging research in financial modelling (new techniques, methodologies, empirical studies, software, etc.);
- stimulating and strengthening the interaction between financial economic theory and the practice of financial decision making;
- co-operating and exchanging information with other universities and financial institutions throughout Europe.

The meetings of the Working Group are organised twice a year, in April and in November. Earlier meetings were held in Belgium, Curaçao, Cyprus, Finland, Hungary, Italy, the Netherlands, United Kingdom, Greece, Croatia, Poland and Spain. The meetings are attended by 80-100 members on average, most of them scientists but also representatives from the financial institutions, and are usually organised on Thursday, Friday and Saturday

morning. The organisers are expected to schedule three types of sessions: a round table session with invited speaker(s), regular sessions with the presentation of refereed papers and balloon sessions in which unrefereed papers, new topics and "loose" ideas can be discussed.

Number of Members

About 400 members from 24 different countries (of which approximately 100 members constitute the more "active kernel" of the group).

Newsletter

The newsletter of the working group, called NEWSFLOW, is published twice a year, one month before each meeting. It contains general information about the Working Group, information about the next meeting(s), abstracts of papers of the next meeting, letters from readers, announcements of financial seminars, calls for papers, a list of working papers, etc.

Activities 1999

The April meeting was organised by Maria Bonilla in Valencia, Spain. The November meeting was organised by Otto Loistl in Vienna, Austria.

Future Planned Activities

The Spring 2000 meeting will be held in May in Trondheim, Norway and is organised by Nico van der Wijst.

The November meeting will be held in New York (USA) and is organised by Anoop Rai.

Next meetings will be held in Vilnius (Lithuania) and Capri (Italy).

ECCO, European Chapter on Combinatorial Optimisation

Co-ordinator

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Prof. Paolo Toth DEIS, University of Bologna Bologna, Italy

Web site

http://www.prism.uvsq.fr/~vdc/ECCO/ECCO.html

Purpose and History

The EURO Working Group on Combinatorial Optimisation, ECCO (European Chapter on Combinatorial Optimisation) was created in 1987 by C. Roucairol, D. de Werra and A. Rinnooy Kan. This group provides an excellent opportunity to discuss recent and important issues in Combinatorial Optimisation and its applications with European combinatorialists; most European countries are represented.

The group is suitable for people who are presently engaged in Combinatorial Optimisation, either in theoretical aspects or in business, industry or public administration applications. All these fields are taken in consideration: operations management logistics, production scheduling, location and distribution problem, resource allocation, flexible

manufacturing, scheduling..., - engineering, VLSI design and computer design, network design, ... Recent sessions in last ECCOs have attached a particular emphasis to metaheuristics or new local search methods (tabu search, genetic algorithms, ant colonies, ...), polyhedral approaches to difficult problems and recent developments in classical optimisation problems (scheduling, assignment, knapsack, partitioning, ...).

The meetings are held on a regular basis (once a year during Spring) and nicely combine scientific works and exchange of new ideas with an exciting atmosphere like Paris, May 88; Venice, June 89; Barcelona, May 90; Dubrovnik, May 91; (cancelled), Graz, April 92; Bruxelles, April 93; Milano, February 94; Poznan, May 95; Dublin, April 96; Tenerife, May 97; Copenhagen, May 98.

An abstract booklet is distributed to the participants at each meeting.

ECCO has organised in July 94 a EURO Summer Institute on Combinatorial Optimisation in France, at Groupe HEC, Jouy en Josas. Twenty five participants representing 15 different countries have presented their work covering the recent trends in CO like metaheuristics, polyhedral approaches as well as more traditional problem areas as scheduling, knapsack, 0-1 programming... Keeping in pace with tradition, a special issue of EJOR has been dedicated to this institute, EJOR Volume 83, Number 2, 1995.

Number of Members

Approximately 350. Approximately 100 participants at each meeting.

Activities 1999

The 12th meeting, Bendor, France, May 27-29, 1999.

Organizer

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Coming up Activities

The 13th meeting, Capri, Italy, May 18-20, 2000.

Organizer

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Transportation

Co-ordinator

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Purpose and History

The EURO Working Group on Urban Traffic and Transportation was founded in July, 1991 in Cetraro (Italy) during the 7th Euro Summer Institute on Urban Traffic Management, with the editing of a special issue of the European Journal of Operational Research (vol. 71, n. 2, 1993) collecting some papers there presented. The name was changed during the Meeting in Glasgow in July, 1994 to TRANSPORTATION, in order to enlarge the topics to be addressed and to involve more people in the participation.

The objectives of this EWG are:

- to provide a forum for exchange of information and experiences on research activities on the field of transportation;
- to encourage joint researches and the developments both of theoretical methods and applications;
- to promote the co-operation among different institutions and organizations, leaders at national

and international level in the field of transportation systems.

The primary field of interest of EWG is: Operations Research methods, mathematical models and computation algorithms to solve and support the solution of problems faced by city authorities and public transport companies.

Relevant areas of interest are:

- traffic control and simulation models;
- traffic network equilibrium models;
- land-use and transportation planning;
- public transport planning and management;
- applications of Combinatorial Optimization;
- intelligent transportation systems;
- impact evaluation on environment, energy, safety, etc.;
- freight transportation, logistics and intermodality;
- vehicle routing and scheduling.

The potential activities of the working group can be the following ones:

- organization of meetings and conferences;
- editing of a Newsletter;
- promotion of joint researches;
- implementation, comparison and validation of software packages;
- application and transfer of models and tools to real case environments;
- information diffusion by internet web pages.

More information on organization activities and mailing list of EWG can be found on internet (http://www.iasi.rm.cnr.it/~ewgt/index.htm).

Books published

- "Concise Encyclopaedia of Traffic & Transportation Systems", editor Papageorgiou M., Pergamon Press, 1991.
- Proceedings of the First Meeting of EWG held in Munich, University of Munich, 1994.
- Proceedings of the Second Meeting of EWG held in Paris, INRETS, 1995.
- Proceedings of the Fourth International Conference on Applications of Advanced Technologies in Transportation Engineering, held in Capri, Italy, June 27-30, 1995.
- "Artificial Intelligence Applications to Traffic Engineering", editors: Bielli, M., Ambrosino, G., Boero M., VSP Publ., 1994.
- "Large Scale Computation and Information Processing in Air Traffic Control", editors Bianco L., Odoni A.R., Springer, Berlin, 1993.
- "The Traffic Assignment Problem: Model and Methods", editor Patriksson M., VSP, Utrecht, The Netherlands, 1994.
- "Urban Traffic Networks", editors: Gartner, N.H., Improta, G., Transportation Analysis Series, Springer, 1995
- "Advanced Methods in Transportation Analysis", editors: Bianco L., Toth P., Springer, Berlin, 1996.
- "Modelling and Simulation in Air Traffic Management", editors Bianco L., Dell'Olmo P., Odoni A.R., Springer, Berlin, 1997.

Number of Members

155

Newsletter and Communication

A formal newsletter has not been edited till now, but the EURO Bulletins are regularly mailed to members together with information about scientific events and activities concerning the fields the group is interested in. More information on organization activities and mailing list of EWG can be found on internet.

(http://pft2.iasi.rm.cnr.it/EWGT/home.html).

Activities 1999

Editing of a Future Issue of EJOR on "Modeling Traffic and Transportation Systems".

Cooperation within the Second Course on "Advanced Methods for Planning and Management of Transportation Networks", held in Capri, Italy, 24-28 May 1999. All the information could be found on the web site: www.iasi.rm.cnr.it/PFT2/Convegni/conv6/capri99.htm

Seventh Meeting of EWG in Helsinki, 2-3 August 1999 in connection with the Mini Euro Conference on "Artificial Intelligence in transportation and science", Helsinki, 4-6 August, 1999. All the information and the preliminary programme could be found on the web site: www.hut.fi/Units/Transportation/EURO99.html

International Conference on "Modeling and management in transportation", to be held in Poznan and Cracow, Poland, 12-16 october 1999. All the information could be found on the web site: www.put.poznan.pl/events/mmt99

Future Planned Activities

Eighth Meeting of EWG in Rome, 12-15 September 2000.

Further information will be published, as soon as possible, on the web site: http://pft2.iasi.rm.cnr.it/EWGT/home.html.

Group Decision and Negotiation Support

Co-ordinator

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Purpose and History

- To share experiences knowledge and research outcomes in the area of Group Decision, and Negotiation Support.
- To develop collaborative interdisciplinary research between academics and practitioners and between different European countries.
- To increase the awareness of other researchers in related fields (e.g. MCDM) and researchers in different countries (e.g. United States) of work being done in Europe.

Number of Members

Approximately 130

Newsletter

None. The Working Group has developed and continued to update a WWW page providing all of the details of previous workshops, workshops to come, forthcoming events and members details. The address is: http://infolabwww.kub.nl:2080/eurogdss/

Regular letters are sent informing members of forthcoming events.

Activities 1999

10th Working Group Meeting, Copenhagen, Denmark. This meeting precedes the 7th European conference on Information Systems and so working group members have contributed a number of presentations to both the Meeting and the ECIS conference itself. A refereed published set of proceedings has been produced from the papers submitted for the Euro GDN meeting.

Future Planned Activities

Publication of material from the 10th Working Group will be further reviewed and published in a special issue of Group Decision and Negotiation.

11th Euro meeting will be combined with INFORMS GDN 2000 conference in Glasgow Scotland. This will provide opportunities for both US and European Group Decision Support researchers to meet and exchange experiences and theory.

MODEST, Modelling of economies and societies in transition

Co-ordinators

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Purpose and History

MODEST groups specialists in mathematical and computer modelling who are especially interested in modelling and analysis of the economic and social transformation processes taking place in the modern world, with explicit emphasis on the processes taking place in the Central and Eastern parts of Europe. It is the purpose of the Working Group to be a forum for exchange of ideas and experiences in this domain, and also to identify these areas where the most acute gaps exist and where modelling is feasible, and to formulate as well as promote research projects for such areas. The modelling that MODEST is most interested in is the pragmatic one (whether macro- or microeconomic, simple regression or complex dynamic, analytic or simulation, but oriented at definite currently debated and crucial questions, as well as based upon real data or real-life guesses). Yet, theoretical models (like e.g. economico-political ones, for instance based on game theory) are by no means excluded from the MODEST's perspective.

The Working Group was established in the Spring of 1994 as an informal body. By Summer 1994 it reached the critical mass in terms of international and interdisciplinary character of the core membership.

In Fall 1994 MODEST was granted affiliation with the Technical Committee of the International Federation of Automatic Control dealing with "Dynamic Modelling of National and Regional Economies", headed by Professor Berc Rustem from London and, following this, it was proposed that Professor Zbigniew Nahorski would serve as the Vice-Chair of this Technical Committee. In January 1995 MODEST was granted, to our great satisfaction, the Working Group ("EWG") status with EURO. These two affiliations allow the Group to maintain the connection with two international communities which are essential for the methodology and implementation of modelling approaches and projects.

MODEST is - locally - institutionally assisted by the Polish Operational and System Research Society, The Interfaces Institute Co. in Warsaw, and by the Systems Research Institute of the Polish Academy of Sciences.

Number of Members

More than 90 as of Spring 2000.

Newsletter

MODEST Newsletter's last issue was sent around in Fall 1999.

Activities 1999

There has still been an on-going work on publications from the bigger conference held in Warsaw in June 1997, devoted to Transition to Advanced Market Institutions and Economies: Systems and Operations Research Challenges (organised by the Systems Research Institute of the Polish Academy of Sciences and the Polish Operational and System Research Society, with the co-sponsorship of IFORS, IFAC and IIASA, and the active contribution of MODEST). The result will be three books, one, containing more "technical" papers, will constitute a volume of Annals of Operations Research, and two other, containing more "economic" papers - will be published by a known international publishing house. It is now expected that the three will be published in 2000.

In September 1999 the MODEST IV (quasi-annual) meeting was held in Rembertów by Warsaw, run in association with the EURO PRIME. Several MOD-

EST members participated in the proper working meeting, as well as in the EURO PRIME, at which some plenary lectures were delivered by them.

Future Planned Activities

No (quasi-)annual meeting is planned for 2000 in view of workload and more time necessary for preparation for a more "serious" seminar or conference.

On the basis of papers presented at MODEST IV and some other proposals that have reached the EWG co-ordinators a volume is planned, now being under initial negotiations with an important international publishing house. It is planned that the volume will present some 15 papers devoted to a more general perspective on transition processes and their modelling.

WATT, Working group on automated time tabling

Co-ordinators

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Prof Jan A.M. Schreuder University of Twente Postbus 217, 7500 AE Enschede The Netherlands

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Website

http://www.sasp.cs.nott.ac.uk/ASAP/watt/

Purpose and History

Computers have been used to aid the construction of timetables since the late fifties. The first generation of computer-based systems were no more than book-keeping programs that would store all the data and occasionally allow some manipulation. In the mid-sixties, computer programs that actually carried out the scheduling process were first developed. Since then there has been a consistent flow of research papers concerned with this problem.

In recent years, the interest in automated timetabling has increased to a large extent. Recent papers are covering practical issues as well as the application of many advanced algorithmic techniques such as constraint logic programming, evolutionary computation, graph colouring, simulated annealing, tabu search and others. The 1997 conference on Automated timetabling in Toronto attracted a lot of interest and was a huge success.

Most of the papers on automated timetabling deal with the scheduling of lecture courses or exams in educational institutions (i.e. the problem is to automatically generate a plan which indicates meetings between students, teachers and subjects at times and places). This is one of the main interests of the working group. However, there is also a high level of interest in other timetabling problems such as the timetabling of sports fixtures, railway timetabling and employee timetabling.

The objectives of the group are:

organising workshops/conferences;

- publishing articles and books;
- establishing a network for exchange of information/students/staff;
- use of the internet;
- developing bench-marks;
- organising timetabling databases containing literature, software packages and test-data from various different institutions.

Number of Members

225

Newsletter

We have recently re-organised the e-mail digest. The next issue (in the new format) will be sent to all members in June 2000.

Activities 1998 - 99

The 3rd EURO WATT Workshop held in Beijing (at the IFORS conference) in Summer 1999.

The publication of a volume of selected papers from the 2nd International Conference on the Practice and Theory of Automated Timetabling (PATAT'97). University of Toronto, Canada - August 20-22, 1997. This was published in 1998 in the Springer Lecture Notes in Computer Science series, Volume 1408.

Running an e-mail list for all group members.

Organisation of a timetabling bibliography on the world wide web. See ftp://ftp.cs.usyd.edu.au/jeff/timetabling/timetabling.bib.yz

Maintaining the group's web pages.

See: http://www.asap.cs.nott.ac.uk/ASAP/watt/

Organising the e-mail digest (see above).

Future Planned Activities

The 3rd international conference on the Theory and Practice of Automated Timetabling (PATAT 2000) will be held in Konstanz on 16th-18th August 2000. This will incorporate WATT's 4th annual workshop.

The re-organised WATT e-mail digest will be sent to members every 6 months.

Environmental planning

Co-ordinator

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Purpose and History

The main purpose of the EURO Working Group on Environmental Planning is to encourage communication and research between members of EURO member societies specialising in environmental planning and management. The Group has been founded during the XIV EURO Summer Institute on Environmental Planning (Lagonnissi, Greece, June 7-21, 1996).

Since the first post-war period OR techniques have been widely and successfully implemented in a wide variety of managerial problems encountered in the industrialised world. In the last two decades, a major challenge for OR theorists and practitioners is to investigate the transferability of the experience gained towards the less developed countries, as well as to effectively cope with the new problems emerging from the developmental pro-

cedure. Environmental crisis appears as the most severe among these problems because its many different aspects threaten the development itself. The relationships linking the economic, natural and social systems lead to a redefinition of the concept of development as to encompass not only economic growth but also the stability of the ecosystem and social welfare.

Since the environment is an important point of reference of any human, economic or social activity, environmental planning comes out as a necessary function for the design of the desired future and for finding effective ways for achieving sustainability.

During the last decades, environmental problems have given rise to complex decision issues, which are receiving increasing social attention and are becoming more and more important, not only for human welfare, but even for human survival. Involvement in Environmental Planning decisions has become a major challenge for OR. Issues of methodology and applications of OR concerning environmental decision making include among others:

- Environmental decision support systems.
- Environmental impact assessment.
- Environmental issues in business strategy.
- Environmental issues in production management and control.
- Environmental forecasting.
- Monitoring networks.
- Locational analysis.
- Risk and reliability.
- Environmental review, auditing and reporting.
- Life cycle analysis.
- Ecodesign.
- Environmental marketing and communication.
- Reverse Logistics
- Environmental Management Systems (ISO 14000, EMAS)

In fact, a short look at the literature related either to OR/MS or to environmental issues shows that opportunities for research in the field of environmental planning/management have already been quite extensively exploited by operational researchers. However, it is still not clear which are the particular stages of the environmental planning procedure needing assistance from OR/MS. It is also not yet visible at which particular topics this research is directed and which OR techniques are used to fulfil the research requirements. Since the area is still under development, such a knowledge can considerably assist in revealing actual trends and main findings, as well as in identifying major deficiencies, either in the issues covered or in the OR techniques used.

Number of Members

60

Recent and Future Planned Activities

The group recently organised one session of the last IFORS conference, which took place in Beijing in August 1999.

The next meeting of the members of the Group has been planned for July 2000, during the EURO 2000 Conference in Budapest. One session of this conference, focusing this time on Reverse Logistics, has been organised by the Group.

Website

Information about the group and its activities may be found at the following website: http://www.unipi.gr/gaia/gaia.htm

PAREO, Parallel processing in operation research

Co-ordination Board

■ Catherine Roucairol

(PRiSM, University of Versailles, Versailles, France)

■ Theodor Crainic

(CRT, University of Montréal, Montréal, Canada)

■ Jonathan Eckstein

(Rutgers University, New Brunswick, U.S.A.)

■ Gerard Kindervater

(Erasmus University, Rotterdam, The Netherlands)

■ Bertrand Le cun

(PRiSM, University of Versailles, Versailles, France)

■ Celso Ribeiro

(PUC do Rio de Janeiro, Rio de Janeiro, Brazil)

Contact Address

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Purpose and History

Parallel computers may have a considerable impact on many areas of Operations Research (OR). Their use makes it possible to solve larger problems in less time, and thus leads to substantial savings. However, it is a non-trivial task to design effective algorithms for the parallel machines currently available, as well as to build suitable development environments and programming tools. Because of the considerable effort required to exploit the potential power of parallel architectures, in addition to the scarce contacts between the (classical) OR-community and specialists in Parallel Computing, many researchers in the field of Operations

Research are not fully aware of the perspectives parallelism may offer.

A broad variety of real-word problems in Operations Research appears to be practically intractable using traditional hardware. At the same time, it is generally expected that parallel processing will become a major tool in solving these problems.

Unfortunately, current conferences on operations research (like the EURO meetings), are seldom attended by many specialists in parallel computing, while the OR-public appears unprepared to discuss the challenges of the design parallel algorithms, even if special sessions are organized. Conversely, conferences on parallel computing barely draw their attendees from the OR-community, as a good number of the topics at those conferences (such as architectures, parallel languages, etc.) are beyond their competence.

This reinforces the needs to create a working group interfacing between these two complementary disciplines. Consequently, the Association of European Operational Research Societies EURO has decided to create a new working group on parallel processing (called PAREO). The working group will be the meeting point for (European) researchers in operations research and computer scientists interested in the development of parallel algorithms for OR-problems. Moreover, it will enable them to obtain a double competence in both operation research and (parallel) computer science.

The PAREO working group aims to bring together researchers from both academia and industry who are interested in the development of parallel algorithms for problems in the area of operations research. Its main objective is to bridge the gap between the two complementary disciplines of operations research and parallel computing. Concerned are people from operations research working in domains like Combinatorial Optimization, mathematical programming, stochastic programming, and networks, and people from computer

science dealing with issues such as performance and scalability of parallel systems, mapping of algorithms onto parallel computers, programming environments, visual interfaces.

Number of Members

Presently, there are 87 members, The membership of PAREO is free of charge. One can become a member by sending an email to pareo@prism.uvsq.fr

Past and Future Planned Activities

Annual meetings

- The first meeting PAREO '98 has been held in Versailles, France, July 8-10, 1998
- The PAREO group has organized 2 sessions in the Informs'99 conference in China
- The PAREO'2000 will be held inPaderborn, Germany, June 14-16 2000, http://www.uni-paderborn.de/~PAREO2000/
- Joint meetings to propagate contacts between the OR-community and computer scientists from the area of parallel computing
- The maintenance of a (moderated) mailing list with announcements, recent developments, etc. (Contributions can be sent by email to pareo@prism.uvsq.fr)

DEAPM, Data envelopment analysis and performance measurement

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Purpose and History

In July 1996, at the IFORS conference in Vancouver, the idea of a DEA Euro Working Group emerged, from the realisation that so many people working in the field could profit from a forum where they could discuss their ideas and foster collaborative work.

DEA (Data Envelopment Analysis) is the optimisation method of mathematical programming that generalises Farrell's (1957) single-input/ single-output technical efficiency measure to the multiple-input/ multiple-output case. Thus DEA became a new tool in operational research for measuring technical efficiency. It was originally developed by Charnes, Cooper and Rhodes (1978) with constant returns to scale, and was extended by Banker, Charnes and Cooper (1984) to include variable returns to scale. So the basic DEA models

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are known as CCR and BCC. Since 1978 over 1000 articles, books and dissertation have been published, and DEA has rapidly extended to returns to scale, dummy or categorical variables, discretionary and non-discretionary variables, incorporating value judgements, longitudinal analysis, weight restrictions, stochastic DEA, non-parametric Malmquist indices, technical change in DEA and many other topics. Up to now the DEA measure has been used to evaluate and compare educational departments (schools, colleges and universities), health care (hospitals, clinics) prisons, agricultural production, banking, armed forces, sports, market research, transportation (highway maintenance), courts, benchmarking, index number construction and many other applications.

At the moment researchers follow wide ranges of DEA and related topics. The main research areas of DEA are:

- Returns to scale
- Dummy or categorical variables
- Discretionary and non-discretionary variables
- Incorporating judgement
- Longitudinal analysis
- Weights restrictions
- Stochastic DEA
- Non-parametric Malmquist indices
- Technical change in DEA
- and many other topics

Based on the above, the EURO Working Group on DEA and Performance Measurement has been established in 1997, after an application to EURO Executive Committee.

The main objectives of the group are to:

- Foster collaborative research between members of different institutions, countries, and professional backgrounds.
- Organise specialist conferences and workshops in the area of DEA and Performance Measurement
- Specialist publications of issues in the area.
- Organisation of good quality conference streams in the area.

Number of Members

As of now approximately 120 people, from 26 different countries have joined the group.

Future Planned Activities

Near future:

■ Group meeting within the North American Productivity Workshop, June 19-21 2000.

Possible projects for the longer term:

- Workshops specifically for practitioners.
- Mini EURO Conference.



DDM Distributed Decision Making (formerly HOP, Hierarchical organisational planning)

Co-ordinators

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Vetschera/Vetscherad.html

Website

www.bwl.uni-mannheim.de/Schneeweiss/hop/hop.html

Purpose

Distributed Decision Making (Hierarchical Planning) is an important planning concept and hence an important part of Operations Research. Numerous problems turn out to be of a hierarchical nature. This is due to the fact that in real life problems, one usually has information asymmetry. The WG discusses information asymmetry in the framework of one decision maker who has to make decisions at different points in time, or, in multi person settings, of antagonistically behaving decision makers. The latter will allow for a connection of classical Hierarchical Production Plan-

ning with Agency Theory: Modern supply chain analysis might be an important field of investigation.

The purpose of the WG on Distributed Decision making is to foster this field of Operations Research. In addition, questions concerning formal organisational theory may hopefully gain a greater attention in the OR community than it is now the case. Furthermore, in strengthening the more conceptual direction of OR, one might be able to provide a substantial contribution to the general theory of business administration and the management process.

Number of Members

The number of members is up to now about 60 persons.

Activities 1997-2000

HOP II: EURO XV, Barcelona 1997
HOP II: Mannheim, March 27/28, 1998
Special session: at EURO XVI, Brussels 1998
HOP III: Mannheim, March 5/6, 1999
HOP IV: University of Vienna, Austria,
March 10-11, 2000

Future Planned Activities

- Contribution to EURO'2000 Conference in Budapest
- A stream on DDM is porposed for the EURO 2001 Conference in Rotterdam
- A next DDM (HOP V) meeting is planned in Eindhoven, October 2001

Euro Working Group Methodology for Analyzing Complex Societal Problems

Co-ordinator

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Purpose and History

The interest for the Euro Working Group Methodology for Analyzing Complex Societal Problems is steadily growing. In July 1998 on the Euro XVI conference in Brussels we had three days of continue discussions of the subject of the working group. The discussion were very inspiring for all of us. We were very glad that we could invite 23 paper presenters in the Brussels sessions. The number of members of the Euro Working Group is still growing. A special attention deserves the work of dr. Timi Ecimovic (SEM Institute for Climate Change University of Ljubljana, Slovenia) who has erected a very active Slovenia subgroup of the Euro Working Group, and to dr. Cathal Brugha (University College Dublin, Ireland) who has formed a special subgroup on Decision Making on our topic.

The members of the Euro Working Group come from different fields and are work at different universities. There is a high degree of activity and interaction amongst the members of the group.

Having a growing membership is needed, because the problems society is confronted with are difficult to handle and there is a growing gap between the complexity of these problems and the human capacity to deal with them. There is a need for better methods and tools, more knowledge and imagination. Scientific knowledge is needed to survive amidst these problems. Handling complex societal problems needs a special approach. Handling societal problems in an interdisciplinary way has become a must for our society and a challenge for the human sciences.

Methodology for analyzing complex societal problems has become a new field of scientific attention. Some of the scientific reasons for this special approach are that the problems are seldom defined, change during their development, many actors are involved often with a different view on the problem and with different 'solutions' in mind. Societal reasons for this special approach is the importance of these problems for society, the impact they have on many people, and the large amount of money involved.

Combining the effort of scientists who are working in this field is an inspiring serious challenge from the perspective of a number of disciplines. Combining existing knowledge and creating new insights with methods and tools for supporting complex societal problems is a challenge for scientists from different fields.

The goal of the Euro Group on Methodology for Complex Societal Problems is to increase and to combine the available scientifical knowledge regarding the handling of complex societal problems. Means to reach this goal are organizing workshops and conferences, and publishing proceedings and books in which discussion on this subject can take place.

Number of Members

About 50

Activities

Special sessions and conferences organized on the subject Methodology for Complex Societal Problems are:

■ ISAGA conference Ann Arbor, Michigan, USA, July 1994

- The First International Conference on Methods and Tools for Analyzing Complex Societal Problems, Delft University of Technology, The Netherlands, November 1994
- Euro XIV, 14th European Conference on Operational Research, 1995- 20thAnniversary of Euro, Jerusalem, Israel, July 1995
- Second International Conference on Methods and Tools for Analyzing Complex Societal Problems, Munich University of Technology, Germany, organized in conjunction with WACRA-Europe Society on Case Method Research, June 1996
- IFORS '96 conference, Vancouver, Canada, July 1996
- ISAGA conference University of Tilburg, The Netherlands, July 1997
- EURO/INFORMS conference Barcelona, Spain, July 1997

- WACRA- Europe conference, Madrid, Spain, September 1997
- Euro XVI Operational Research. Brussels, Euro Working Group Methodology for Analyzing Societal Problems July 1998
- 14th International Sociology Conference, Montreal, Canada, July 1998
- Simulation. Simulation in Industry Conference, Nottingham, UK, October 1998
- IFORS'99 conference in Beijing August 1999 in cooperation with the subgroup Decision Modeling and the Dutch Nosmo research group on Methodology for Analyzing Societal Problems

Future Planned Activities

In 2000 the session of the Euro Working group will be held in Budapest.

COWG Euro Working group on Continuous Optimization

Co-ordinator

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Members

We hope to start with at least 50 members at the EURO meeting in Budapest, July 2000.

Purpose

Objectives

The main objective of the COWG is to:

- disseminate state of the knowledge and facilitate research on continuous optimization;
- contribute to the education of young optimization people;

- get the continuous optimization community in Europe organized in the umbrella of EURO;
- establish regular information channels and regular meetings;
- build links to users of continuous optimization methods, to involve industrial organization in the activities.

We also want to make the EURO COWG visible for the outside world by establishing vital contacts with sister groups of other societies.

Organization

The COWG will have an elected chairman and a vice chairman (or coordinator). The first coordinator will be: Tibor Illés, Eötvös University, Budapest (E-mail: illes@math.elte.hu).

The vice-chairman will maintain the membership list, the WEB page of the COWG, and in accordance with the chairman will do all the mailing and administrative duties of the WG.

For regularly organize workshops, eventually summer schools and EJOR special issues ad-hoc committees will be elected.

The term of the chairman and vive chairman is three years.

International composition: We have strong indication that the COWG will involve representatives of many countries: Portugal, Spain, France, Britain, Belgium, The Netherlands, Germany, Switzerland, Italy, Croatia, Yugoslavia, Hungary, Romania and many more.

Complementarity: Continuous optimization is a missing subject on EURO's palette of featured topics. Although continuous optimization methods, models like linear pro-gramming are the foundation of operations research these fundamental topics are not represented yet in EURO WG's. The closest sister group is the Combinatorial Optimization WG (ECCO). We believe that there is sufficient discrepancy between these WG's to justify their co-existence. They distinguish themselves to deal with discrete optimization problems while COWG concentrates on fundamental and applied problems of continuous optimization.

Former activities

The COWG will be formed at the second day of the second IPM Workshop (IPM-2000), organized just before the EURO meeting. Organization is in an advanced state.

Future Planned Activities

- Some special issues of EJOR related to the workshop and the Continuous Optimization sub-stream of the Budapest EURO meeting.
- The COWG will maintain: a home-page with activity information; membership list; relevant conferences etc.
- Will organize workshops regularly, typically but not exclusively before or after the EURO-k conferences.
- Plan to organize ESI's in the future.
- Facilitate the dissemination of state-of-the-art knowledge on continuous optimization.
- Build and maintain links with sister special interest groups inside and outside EURO. Inside EURO the Combinatorial Optimization (ECCO), Multicriteria Aid for Decisions and Fuzzy Sets WG are the dosest sistera, Outside EURO we plan to contact SIAM's, INFORM's and APOR's Optimization groups.



EURO MEMBER SOCIETIES CORNER

This corner is devoted to news passed on by EURO Member societies to the EURO Bulletin. In view of its international scientific status, EURO reserves the right not to publish in its bulletin any statement that is only slightly (or not at all) related to Operational Research.

The Portuguese Operational Research Society

On behalf of APDIO (Portuguese Operational Research Society) a book on "Case Studies of Operational Research" (Carlos Henggeler Antunes and Luís Valadares Tavares, Editors), ISBN 972-773-075-2, in Portuguese, has been recently published by McGraw-Hill Portugal. The book includes 20 case studies from several authors.

The authors were asked to present application studies based on works developed for an entity (even with some limitations stemming from confidentiality reasons), aimed at emphasising the "value-added" generated by OR in tackling the real-world problem. As far as possible the papers include information on relevant aspects such as the description of the problematic under analysis, the developed models, the methods which have been used, the data gathering for models and methods application, the obtained results and their applicability.

However, in this general framework, and given the heterogeneity of the involved entities, the papers reflect the richness and diversity of real-world problems and the multifaceted modes by means of which OR intervention can be developed:

- some cases include sufficient details for the readers (particularly the students) to construct and solve the models,
- other cases emphasise the model formulation or the problem definition,
- and other cases possess a more "strategic" nature.

However, these case studies always present an application nature, contributing to know better the reality and to aid those who must make the decisions.

These works can be used as tools of study in OR undergraduate and post-graduate courses, enabling the participation of the students in replicating

them, in systems, which are similar, or simplifications of the ones under study.

The selected works show a high degree of thematic diversity, being well distributed among four broad groups:

Management of industrial operations

- PLACORTE Sheet Cut Optimisation (José Fernando Oliveira, José Soeiro Ferreira)
- Economic Scrapping Quantity of Residual Stocked Products (Rui Assis)
- Optimal Flow and Equipment Assignment Problem (Domingos M. Cardoso, Flora M. Marques, Célia C. Passos)
- COROLIMA A Production Planning Support System for Coelima (António Miguel Gomes, Maria Helena Correia, José Fernando Oliveira, António Machado, José Soeiro Ferreira)
- A Decision Support System for Hierarchical Production Planning of Paper Rolls (Maria Eugénia Captivo, Ana Respício, António J. Rodrigues)

Management of Service Operations

- GIST A Decision Support System for Operational Planning of Public Transport (Jorge Pinho de Sousa, João Falcão e Cunha, Rui Guimarães, José P. Paixão)
- Letter Sorting a Job Scheduling Approach (Jacinto Maurício Nunes, M. Teresa Almeida)
- A Study of the Refuse Collecting Routes in Faro's Rural Area (G. Schutz, F. M. Pires, A. E. Ruano)
- Bus Driver Scheduling with Metaheuristics (Rita Portugal, Helena Ramalhinho Lourenço, José Pinto Paixão)
- Vehicle Routing for Distributed Service in Urban Networks (João Coutinho Rodrigues, João Clímaco, Nelson Rodrigues)

Economic modelling of markets

■ The Area-Yield Crop Insurance in Stabilising the Farmers' Income (Amilcar Serrão, Luís Coelho)

- Application of a Linear Programming-Based Economic Index to the Analysis of the Evolution of the Cost of Foods (Brasil) (Solange Fortuna Lucas, Marcos Estellita Lins, Saul Fuks)
- Do Rules Apply to Undeveloped Housing Markets? A Study of the Portuguese Housing Market (Joaquim Montezuma de Carvalho)
- Market Share Models for Consumer Goods with Low Levels of Differentiation - a Retail Case Study (Armando Brito Mendes, Isabel Hall Themido)

Decision Support

- An Application of Integer Linear Programming for Power Management of Electrical Installations (Máximo Rosado, Carlos Alegria, Carlos J. Luz)
- Strategic Development Support to a Ship Repair Company (Nelson Chibeles Martins, Luís Valadares Tavares)

- A Multicriteria Methodology Supporting Bid Evaluation in Public Call Tenders (Carlos Bana e Costa, José A. Antunes Ferreira, Émerson C. Corrêa)
- DEA Application to the Analysis of Post Office Stations' Efficiency (Maurício António Vaz)
- Information and Decision in Portuguese Banks: The European Monetary Union Challenge (Manuel João Pereira, Luís Valadares Tavares)

Besides the contributed papers the book includes an invited article by Prof. Maurice Shutler (London School of Economics and Political Science) on the performance evaluation of public and privatised industries, and a foreword by the editors.

For more information

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EURO events calendar

26/06-7/07/00	ESI	Summer School in MCDA: Sicily, Italy http://www.unict.it/ssmc2000
4-7/07/00	EWG	Group and Negociation Decision Support: Glasgow, Scotland Fran@mansci.strath.ac.uk http://www.cbe.wwu.edu/gdn/GDN2000.html
16-19/07/00	EURO XVII	Budapest, Hungary hencsey@sztaki.uk http://www.sztaki.hu/conferences/euro17/
31/07-4/08/00	EWG	ORAHS: Glasgow, Scotland jri@gcal.ac.uk
16-18/08/2000	EWG	WATT: PATAT2000, The 3rd international conference on the Practice and Theory of Automated Timetabling erben@fh-konstanz.de/patat2000/http://www.asap.cs.nott.ac.uk/ASAP/ttg/patat-index.html
12-15/09/00	EWG	Transportation: 8th Meeting, Rome, Italy bielli@iasi.rm.cnr.it http://pft2.iasi.rm.cnr.it/ewgt/homen.html
5-6/10/00	EWG	Aid for Multicriteria Decisions: 52nd Meeting, Vilnius, Lithuania roy@lamsade.dauphine.fr http://http://www.science.mii.lt/MCDA-52
16-17/11/00	EWG	Financial Modelling: New York, USA Molenaar@few.eur.nl
14-17/12/00	EWG	Locational Analysis: Barcelona, Spain daniel.serra@econ.upf.es
9-11/07/01	EURO XVIII	http://www.euro2001.org: Rotterdam, The Netherlands

If you want to add any EURO event, please contact the EURO Office (euro@ulb.ac.be).

ESWI: EURO Summer & Winter Institute

EURO-k: EURO Conference

EURO Prime: EURO Prime Conference EWG: EURO Working Group Meeting Mini EURO: Mini EURO Conference

EURO XVII

17th European Conference on Operational Research

Budapest, Hungary, July 16-19, 2000 http://www.sztaki.hu/conferences/euro17

OR FOR A UNITED EUROPE 25th Anniversary of EURO

Hosted by The Hungarian Operational Research Society (HORS)

"EURI XVII Secretariat", c/o Viktor Richter Computer and Automation Research Institute, Hungarian Academy of Sciences Kende u. 13-17, H-1111 Budapest, Hungary Fax: +361 386 9378 - E-mail: richter@sztaki.hu http://www.sztaki.hu/conferences/euro17

Important dates

Notification of abstract acc	ceptance	e1 March 2000
Second Announcement an	d Prelimi	inary Programme1 April 2000
Deadline for early registra	tion	15 May 2000
Final Programme		1 June 2000
Conference		16-19 July 2000