

The early days of the European Microwave Conference

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A historical prospective on the establishment and purposes of the European Microwave Association, or EuMA, has been published in the *Microwave Magazine*, IEEE-MTT, in 2001 [1]. It shows that the story started with the foundation of the European Microwave Conference, EuMC, in 1969. The EuMC was first established in the fall of every odd year, beginning in London in 1969, then Stockholm in 1971, and Brussels in 1973.

Starting with Montreux in 1974, the EuMC became an annual event. Simultaneously, it became organized with the support of a professional conference manager and combined with an exhibition of manufacturers of microwave components, systems, and test equipment. F. Gardiol, Chairman of the EuMC in Montreux, recently described this in detail [2].

A further evolutionary development in the conference came from the decision to organize a European Microwave Week, or EuMW, starting 1998. With this in mind, contacts were established with other technical entities. Simultaneously, the Management Committee of the EuMC decided in 1997 to create the European Microwave Association, EuMA, as an international non-profit association under Belgian law, with a scientific, educational and technical purpose. After five years since its establishment, the EuMW was recognized as the most important microwave event in Europe and the second in the world. The recent developments of EuMA and the EuMWs are described in a paper to be published soon [3].

Still, one historical element is missing: How did it start? What were the early days?

On joining GEC in 1953, after graduation from Imperial College, Peter Clarricoats began work on microwave ferrite devices and continued this work on joining the university world in 1959. However, in the early sixties there was also much interest in gaseous plasmas in the context of the re-entry of manned space vehicles, when signal was lost during a critical period. There was a suggestion that the application of a magnetic field could, as with ferrites, change the properties of the plasma and allow signal to propagate and communication to be restored. Because of the similarities between ferrites and plasmas, Peter studied both for a time and, with worldwide interest, he suggested to the IEE that an international conference should be held.

For the IEE in the swinging sixties, an international conference was a totally new idea but after his appointment at the University of Leeds as a professor in 1963,

he seemed to have powers of persuasion! Anyhow he organised and chaired the *International Conference on Ferrimagnetics and Plasmas*. It was a success, attracting some of the most famous microwave names of the day from both the USA and Europe. At that time, he was also a regular attendee at the IEEE MTT Symposia. Interesting to observe that the first MTT Symposium André Vander Vorst attended was in 1966, Palo Alto, while at Stanford university with a postdoctoral fellowship!

So when, in 1967, the IEE committee came to review the concept of a second conference on Ferrimagnetics and Plasmas, Peter suggested that instead they should hold an *International Microwave Conference*. Another member of the committee, Eric Ash, who was then working in Industry and was very pro Europe, went the next stage and said why not a *European Microwave Conference*. The Committee Chairman and natural microwave leader in the UK at that time was Professor Harold Barlow of University College London and he was designated as Conference Chairman. Later, Eric became co-chairman. The opening ceremony of the *1st European Microwave Conference* was held in September 1969 at the the Institution of Electrical Engineers, Savoy Place. As the IEE could not provide facilities for parallel sessions, while there were two parallel sessions, the Programme was held simultaneously at the IEE, Savoy Place, and the Institution of Mechanical Engineers, 1, Birdcage Walk. Interesting enough: the Conferences fees were £15 for members of sponsoring bodies ...! It should also be noted that this was a five-day conference!

The members of the Organising Committee were representing the Institution of Electrical Engineers, the Institution of Electronic and Radio Engineers and the Institute of Electrical and Electronics Engineers (Region 8) as well as the Group on Microwave Theory and Techniques. They were I.B. Bott, P.J.B. Clarricoats, D.E.N. Davies, C.A.P. Foxell, W.A. Gambling, K.C. Kao, J.A. Lane, P.F. Mariner, M.H.N. Potok, S.J. Robinson, C.R. Russell, and F.L. Warner. There was a rather large set of Corresponding members: B. Agdur, F. Borgnis, H. Bosma, E Dalla Volta, P.G. Debois, L. Dobner, V.M. Dmitrachenko, R.S. Engelbert, G. Epprecht, A. Grivet, R.L. Hansen, A.E.

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Karbowiak, W. Klei, H.L. Knudsen, R. Levy, H.G. Meinke, J. Nishizawa, B. Oguchi, S. Okwit, A.A. Oliner, G. Reiter, G. Rosenberg, J.E. Rowe, G. Sinclair, A. Smolinski, M. Tiuri, G. Toraldo di Francia, H-G. Unger, G.B. Walker, A.A.Th.M. Van Trier, A. Vander Vorst, E. Viti, T. Wessel-Berg, and L. Young. A rather impressive group of individuals!

The 1969 EuMC in London was a success and the decision was made by the IEE to take the next EuMC to Stockholm in 1971. It is worth mentioning that in those days they were two chairmen: the General Chairman and the TPC Chairman. The General Chair had to take care of everything, including receptions, general organisation, hotels, etc., while the TPC Chair was in charge with his committee of the "intellectual part": evaluating the submitting papers, selecting the accepted papers, organizing sessions, appointing session chairs, etc. The Stockholm EuMC was under the Chairmanship of Professor Bertil Agdur, while Prof. E. Folke Bolinder was the TPC Chairman.

During the Conference in Stockholm, Prof. Jean Van Bladel, who could not attend, called Prof. André Vander Vorst in Stockholm, proposing to host the EuMC in Brussels in 1973. He offered to be the General chair, while André should be the TPC chair. The proposal was made at the meeting and accepted on the spot. Some might be interested by reading a report on the EuMC Brussels 1973. Written by Jeff Collins, it appeared in *Microwave Systems News*, 1973 [4]. There were more than 700 registrants in Brussels '03.



André Vander Vorst was born in Brussels, Belgium, 1935. He received the degrees of Electrical and Mechanical Engineer 1958, Ph.D. in Applied Sciences 1965, Université catholique de Louvain (UCL), Belgium, and M.Sc. in Electrical Engineering 1965, M.I.T., USA. He has been associated with U.C.L., as assistant, 1958, assistant professor, 1962, associate professor, 1968, professor, 1972,

and professor emeritus, 2001. With a post-doctoral fellowship, he was in the US from 1964 to 1966, first at M.I.T., then at Stanford University, both in radio-astronomy. In 1966, he founded the Microwave Laboratory at UCL.

He has been Head of the EE Department 1970-1972, Dean of Engineering 1972-1975, Vice-President of the Academic Council 1973-1975, President of the Open School in Economic and Social Politics 1973-1987, UCL. He has been teaching in four Belgian universities. He has been a member of various committees on communications, microwaves, and education, active in IEEE Region 8, the IEEE Microwave Theory and Techniques Society, MTT-S, and the European Microwave Conferences. He is a founder member of a number of associations, including The European Microwave Association, EuMA, of which he is Secretary General and Treasurer since 1998. He is a cofounder of the company Microwave Circuits and Systems, MiC6, Belgium. He has authored or co-authored six books, several chapters, and more than three hundred scientific and technical papers pub-

A few months later, Roger Marriott contacted Jean Van Bladel. Jean and André met Roger at Brussels airport. Roger proposed to offer its services in setting up an exhibition and organizing the Conference. This is how it happened in Montreux 1974, as described in detail by Fred Gardiol [2]. At this first meeting with Roger, it appeared that there was a concern about Microwave '73, as Fred mentions in his paper. There was also another concern: the existence of MOGA, Microwave and Optical Generation and Amplification. The interested reader is again referred to Fred's paper [2].

The present paper fills the gap in the history of the European Microwave Conference. It covers the rather exceptional first years. It is amazing to see how a very few dedicated people have been able to set up the EuMC, which is now benefiting from a second birth, within the frame of the European Microwave Week.

References

- [1] Vander Vorst, A.; Sorrentino, R.: The European Microwave Association. *IEEE Microwave Mag.* 2001, 92-100.
- [2] Gardiol, F.: Thirty years ago. *Proc. Eur. Microwave Assoc.* 1 (2005), 55-58.
- [3] Vander Vorst, A.; Sorrentino, R.: The European Microwave Association. *IEEE Microwave Mag.*, to be published.
- [4] Collins, J.: Report on EuMC Brussels 1973. *Microwave Systems News*, Oct/Nov 1973, 11-12 and 15.

lished in international journals and proceedings of international conferences, under peer review. He has recently co-authored one more book, at the request of Wiley, together with A. Rosen and Y. Kotsuka, just published: *RF/Microwave Interaction with Biological Tissues*.

He is a Fellow of IEEE, 1985, for his contributions in atmospheric microwave propagation, satellite communication earth station design, and numerical analysis of microwave components. He is a member of Academia Europaea and The Electromagnetics Academy. He has obtained the Sitel Prize 1986, Belgium, the Meritorious Service Award of IEEE-MTT-S 1994, and the IEEE Third Millennium Medal, 2000. He has obtained the Microwave Career Award 2004 from the IEEE-MTT-S "For a Career of Leadership, Meritorious Achievement, Creativity and Outstanding Contributions in the Field of Microwave Theory and Techniques". He is an invited member of Conseil Supérieur d'Hygiène, Belgium, and of Gezondheidsraad, The Netherlands.



Peter Clarricoats CBE FRS FREng Hon FIEE LF IEEE FIP was born in London in 1932. He graduated from Imperial College in 1953 obtaining a BSc (Eng), PhD and DSc (Eng) from the University of London. His first academic appointment was at Queen's University Belfast in 1959 where he started their microwave research group. After his

appointment as a professor in 1963 he formed the microwave group at Leeds University. In 1967 he moved to London and formed the antenna group at Queen Mary College. He has been chairman of five international conferences and proposed to the IEE the holding of the first European Microwave Conference in London in 1969. He was Chairman of EuMC in 1979 and in 1989 won jointly the European Microwave Prize. His other awards include the J J Thomson Medal and Measurement Prize of the IEE and the IEEE APS Distinguished Achievement

Award in 2001. He is the Founder Editor of the IEE Journal *Electronics Letters* and Editor of the IEE *Electromagnetic Wave Series* with 51 volumes.

Professor Clarricoats has served as a Vice-President of both IEE and URSI and was Treasurer of URSI from 1993-99. He has received Honorary Doctorates from the Universities of Kent and of Aston in Birmingham. He has been a consultant to industry since 1960 and has served as the Chairman of the Technology Advisory Board of Filtronic plc from 1998.

