

Conferences, Technical Societies and Development – A History of Synergy

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Abstract — This paper is about IEEE Region 8 Conferences, their *raison d'être* and their impact on the development of Electrotechnology in Europe, the Middle East and Africa (EMEA), which constitute the geographical area of the Region.

The claim is that technology conferences, held by 'learned societies' in different parts of Region 8, were necessary for the technological development of the Region, in order to highlight and discuss the problems with which technology world is coping. In order to set up these conferences, technology experts needed technical societies, such as IEEE, to enable – among other activities – this facility. On the other hand, the holding of these Conferences contributed to the technological development of the Region and to the contact between scientists and engineers, for the benefit of Humanity.

Thereby, IEEE Region 8 and the series of EUROCON, MELECON, AFRICON etc. conferences had a synergetic effect on the technological development of EMEA during the last 50 years (1960–2010). In a business application, synergy means that teamwork will produce an overall better result than if each person within the group were working toward the same goal individually and it is claimed that by creating the awareness about the latest inventions, issues and concerns of technology among technologists, IEEE Conferences, organized by Region 8 Operating units, have largely contributed to the technological development of EMEA in the fields related to IEEE activities.

Index Terms — Conferences, IEEE, Technology-transfer, Region 8.

I. INTRODUCTION

Edison was one of a small group of men who responded to Nathaniel S. Keith's call for a New York meeting to organize a society of electrical professionals to represent the United States to foreign dignitaries who would be attending the International Electrical Exposition the Franklin Institute was hosting in Philadelphia that fall. They met in New York on May 13, 1884 and established the American Institute of Electrical Engineers. The men were a cross section of the electrical experts of the era. The first AIEE president, Norvin Green, was the president of Western Union; the six vice presidents included Thomas Edison, telephone inventor Alexander Graham Bell, MIT physics professor Charles Cross, two veteran telegraphers, and an employee of equipment manufacturer Western Electric. That fall, the new AIEE held its first technical meeting in Philadelphia. Six papers were presented, and then published as the first issue of the new society's journal, the Transactions of the AIEE.

By 1912, Radio engineering was a young profession, with radio telegraph stations connecting ships at sea. A small group of men representing local societies in New York and Boston met in New York in May 1912, and led by Robert Marriott, Alfred Goldsmith, and John V.L Hogan, formed the Institute of

Radio Engineers. Marriott became the first IRE president. To a large extent, they modeled their Institute on the AIEE, with membership grades, a journal, local sections, standards activities, and technical meetings, but there were other influences as well. They established their journal, the Proceedings of the IRE, along the lines of scientific journals, with papers directly submitted and peer review, which allowed for faster publication than AIEE's policy that papers be presented at meetings first. They deliberately did not include 'American' in their name, to signify the transnational nature of radio. Therefore, as years passed, new IRE sections were set up, first in the American continent and later in the Eastern Hemisphere, beginning with the Israel IRE Section, set up in 1954.

In 1963, AIEE and IRE merged into IEEE. As IRE had at that time several Sections in the Eastern Hemisphere, Region 8 was founded as part of IEEE to cover Europe and the Middle East. A few years later, Africa was included into Region 8 borders.

II. EUROCON

One of the first goals of the IEEE Region 8 Committee was to organize technical Conferences, similar to the events held in the US. This could be done only in cooperation with European National Societies. As reported by Dr. Fritz Eggiman, IEEE Chair of the First European Conference, they successfully got the support from 13 national engineering associations within Europe, who became 'supporting Societies' of EUROCON. This became the basis for the founding in 1972 of a Convention of National Societies of Electrical Engineers of Europe (EUREL) as a non-profit organization, as the official partner of IEEE Region 8 in organizing the following EUROCONs. EUREL represents nowadays Member Associations of 9 Countries in Greater Europe. Among EUREL's Missions, the first one was "To facilitate exchange of information and foster a wider dissemination of scientific, technical and other information relevant to Electrical Engineering between Members and other interested bodies."

The first joined activity of IEEE Region 8 and the European national associations was to hold EUROCON 1971, the first European Conference on Electrotechnology, at the Palais de Beaulieu, Lausanne, Switzerland, 18–22 October 1971. Following EUROCON Conferences were held by agreement between IEEE Region 8 and EUREL.

Enormous technological progress was made during the second world war. The English developed radar which would be the forerunner of television. Progress in electronics and computers, made during the war, provided a foundation

for further development that fundamentally transformed the postwar world. All these tremendous developments needed a scene for presentation to the young engineers and EUROCON aimed to become the venue.

The subjects of EUROCON 1971 sessions included:

- Automatic timers
- Biomedical engineering
- Telecommunication
- Electric power distribution
- Electronic data processing
- Integrated circuits

The major objectives set by the convention steering committee – as published in IEEE Spectrum of October 1970 – were as follows: “EUROCON ’71 will provide specialist conferences in selected areas, as well as general reviews and discussions on the state of the art and interactions of technologies. The conference intends to present an educational program of in-depth treatment of advanced technologies.”

EUROCON 1971 was followed by EUROCON 1974 in Amsterdam, and by EUROCON 1977 in Venice, where a Special session was devoted to Communications in developing countries, which was considered to be an important item not only for these countries but for the future of the whole world.

Table I
THE FIRST SERIES OF EUROCON CONFERENCES

- 1 EUROCON 1971 – Lausanne, Switzerland, 18–22 October
- 2 EUROCON 1974 – Amsterdam, Netherlands, 22–26 April
- 3 EUROCON 1977 – Venice, Italy, 3–6 May
- 4 EUROCON 1980 – Stuttgart, Germany, 24–28 March
- 5 EUROCON 1982 – Copenhagen, Denmark, 14–18 June
- 6 EUROCON 1984 – Brighton, UK, 26–28 September
- 7 EUROCON 1986 – Paris, France, 21–23 April
- 8 EUROCON 1988 – Stockholm, Sweden, 13–17 June

EUROCON 1990 was replaced by CompEuro ’90, and EUROCON 1992, scheduled to be held in Zurich, Switzerland, 18–21 May, was canceled.

EUROCON Conferences actually fulfilled their aim “To provide an environment conducive to the informal interaction of engineers, scientists and technical management people. They will be able to make professional contacts and follow them up by attending successive conventions.”

The organizers of EUROCON 1977 already realized the effect of the growth of communications in developing countries, mainly meaning African countries, and a full day of presentations and round-table discussions was devoted to the techno-economic problems and needs for the development of communications in these countries.

The partnership between IEEE Region 8 and EUREL was discontinued in 1988 and the parties agreed that Region 8 can continue to use the EUROCON brand for its meetings.

III. MELECON

While Central Europe profited from the interaction provided by these Conferences and developed technologically, a new geographical area started blossoming technologically: the Mediterranean Countries. This was the moment when the IEEE Israel Section initiated MELECON, the Mediterranean

Electrotechnology Conference. The first edition, held in Tel-Aviv, in presence of Israel’s President and the IEEE President had over 1200 attendees and was followed by MELECON 1983 in Athens, MELECON 1985 in Madrid, and so on.

Table II
THE SERIES OF MELECON CONFERENCES

- 1 MELECON 1981 – Tel-Aviv, Israel, 24–28 May
- 2 MELECON 1983 – Athens, Greece, 24–26 May
- 3 MELECON 1985 – Madrid, Spain, 8–10 October
- 4 MELECON 1987 – Rome, Italy, 24–26 March
- 5 MELECON 1989 – Lisbon, Portugal, 11–13 April
- 6 MELECON 1991 – Ljubljana, Yugoslavia, 22–24 May
- 7 MELECON 1994 – Antalya, Turkey, 12–14 April
- 8 MELECON 1996 – Bari, Italy, 13–16 May
- 9 MELECON 1998 – Tel-Aviv, Israel, 18–20 May
- 10 MELECON 2000 – Limassol, Cyprus, 29–31 May
- 11 MELECON 2002 – Cairo, Egypt, 7–9 May
- 12 MELECON 2004 – Dubrovnik, Croatia, 12–15 May
- 13 MELECON 2006 – Benalmádena (Málaga), Spain, 16–19 May
- 14 MELECON 2008 – Ajaccio, Corsica, France, 5–7 May
- 15 MELECON 2010 – Valletta, Malta, 25–28 April
- 16 MELECON 2012 – Yasmine Hammamet, Tunisia, 25–28 March

IV. AFRICON

As Electrotechnology begun developing in Africa, an IEEE Kenya Section was formed and the first AFRICON Conference was held in Nairobi in 1983, to be followed by AFRICON Conferences in Ivory Coast, Swaziland, South Africa etc. A major problem encountered in these conferences was that Africa was losing some of its best scientific and technical expertise to other regions of the world as many scientists and technician are joining the ‘brain drain’ and are leaving the continent to work abroad. This was the reason that after the first AFRICONS, this series of conferences continued mainly in South Africa for some years.

Table III
THE SERIES OF AFRICON CONFERENCES

- 1 AFRICON 1983 – Nairobi, Kenya, 7–9 December
- 2 AFRICON 1987 – Abidjan, Ivory Coast, 30 November–2 December
- 3 AFRICON 1992 – Mbabane, Swaziland, 22–24 September
- 4 AFRICON 1996 – Stellenbosch, South Africa, 24–27 September
- 5 AFRICON 1999 – Cape Town, South Africa, 28 September–1 October
- 6 AFRICON 2002 – George, South Africa, 2–4 October
- 7 AFRICON 2004 – Gaborone, Botswana, 15–17 September
- 8 AFRICON 2007 – Windhoek, Namibia, 26–28 September
- 9 AFRICON 2009 – Nairobi, Kenya, 23–25 September
- 10 AFRICON 2011 – Livingstone, Zambia, 13–15 September

V. EUROCON IN EASTERN COUNTRIES

A new wave of demand for technological know-how arrived with the fall of the Berlin wall in November 1989 and the formation of a series of post-Soviet countries. The EUROCON series, which had already ‘achieved’ its task of supporting Western Europe, found here a new challenge.

Table IV
THE SECOND SERIES OF EUROCON CONFERENCES

- 9 EUROCON 2001 – Bratislava, Slovakia, 5–7 July
- 10 EUROCON 2003 – Ljubljana, Slovenia, 22–24 September
- 11 EUROCON 2005 – Belgrade, Serbia, 21–24 November
- 12 EUROCON 2007 – Warsaw, Poland, 9–12 September
- 13 EUROCON 2009 – St. Petersburg, Russia, 18–23 May
- 14 EUROCON 2011 – Lisbon, Portugal, 27–29 April

VI. IMPACTS ON TECHNOLOGICAL DEVELOPMENT

Impacts of EUROCON

The years 1945–1975 reflect, mainly in Western Europe, Postwar Growth and National Economic Reconstruction. Europe saw many changes in the immediate post-war period. In part, these changes were brought about by a prosperity that was largely the result of a stable world order in which major investments took place to rebuild national economies damaged by war. In many European countries – and France is certainly no exception here – there was an unbroken period of economic prosperity and rising standards of living, which lasted until the 1970s. In France, the name given to this period of growth, prosperity and abrupt social change was *les trente glorieuses*, that is to say, the thirty glorious years between 1945 and 1975, or more accurately, between the liberation of France in 1944 until the economic downturn triggered by the oil crisis (*crise pétrolière*) of 1973.

Impacts of MELECON

Founded as a State in 1948, Israel had already the Hebrew University as well as the Technion – Israel Institute of Technology – where studies began in 1924. The Weizmann Institute of Science, established in 1934, built the first modern electronic computer in the Middle-East – the WEIZAC – during 1954–1955. These were the years when Israeli Engineers needed the contact with worldwide technological know-how and founded the first Section of the IRE. During the 1970s and the 1980s, Israel began developing the infrastructure needed for research and development, and this was one of the triggers for the initiation of the MELECON series of Conferences.

Impacts of Eastern Countries EUROCONS

In the days before the fall of the ‘Iron Curtain,’ IEEE activity in Eastern and Central Europe Countries was limited. There was a Poland Section, formed in 1972 and occasional IEEE related Conferences had taken place there. The Hungary Section was formed in 1987 and the Region 8 Committee held a meeting in Budapest in April 1989. After the fall of the Berlin Wall, there was a rapid development of IEEE activity and formation of new Sections. The IEEE Russia Section was formed in 1990, and the formation of a Communication Society Chapter followed, but membership growth was slow. Between 1990 and 1992, six new IEEE Sections were formed in Eastern Europe countries, and each, in turn, formed several Society Chapters. These Sections and Chapters sponsored the holding of the ‘revived’ EUROCON Conferences in Eastern Europe countries. As the economic and technological activities developed in these countries, IEEE membership grew and several Region 8 Committee meetings were held in Eastern Europe countries.

The demand for new Conferences

Similar trends are felt since the beginning of the 21st Century on the edges of the Region 8 area. SIBIRCON was first held in 2008 in Novosibirsk, Russia, 21–25 July,

followed by Irkutsk Listvyanka, Russia, 11–15 July 2010. ENERGYCON was initiated in 2010 by the IEEE Saudi Arabia Section; the first one took place in Manama, Bahrain, 18–22 December, and the second one in Florence, Italy, 9–12 September 2012.

VII. THE SYNERGY PATTERN

We can therefore draw a pattern of synergy between Technology, Learned Societies and Conferences:

- The influx of technology into a geographical area is based on the work of a group of scientists and engineers.
- In order to facilitate technological activities, this group forms a National Society, and in many cases a Section of a Transnational body such as IRE and later IEEE.
- The demand for an interchange of ideas between scientists and engineers from different Sections is followed by the organization of a Technical Conference.
- The participation in Technical Conferences enriches the base of knowledge of the members of the audience and contributes to an additional technological development of the area.

This pattern worked well on broad based Regional Conferences, while a trial to set-up a specialized conference like CompEuro – a joint series of Conferences organized by Region 8 and the IEEE Computer Society – did not survive its seventh yearly edition (1987–1993).

VIII. CONCLUSIONS

One can therefore conclude that:

- The first broad conferences in an area foster the technological development of this area, by enabling contacts between Scientists and Technologists of the Region as well as contacts with Prominent Scientists from other parts of the world.
- As time goes by, specialists are migrating to ‘specialists conferences,’ which usually are organized by Societies (while broad conferences are organized by Sections and Regions).
- At this stage, the Regional Conference remains a place for making the first contact and exchanging ideas, mainly for the young newcomers to technology.

Dr. Jacob Baal-Schem received the degrees of Bachelor of Electrical Engineering (1959), Master in EE (1966) and Doctor of Science in Industrial Management (1979) from the Technion, Israel Institute of Technology. After going through the ranks of Israel Defense Forces, he served as Head of the Technical Division of Israel Signal Corps (1973–1975) and Head of Electronics Division of Israel Defense R&D (1975–1977). He retired as Colonel, to join the Interdisciplinary Center for Technological Analysis and Forecasting at Tel-Aviv University (1978–1992). From 1992 to 1997 he was Head of the Interactive Telecommunications Program at the School of Communications of the College of Management and Senior Lecturer at Tel-Aviv University. He is Senior Life Member of IEEE, Member of World Future Society, and received the IEEE Centennial Medal in 1984. In 1987 he received the Larry K. Wilson Transnational Award for Initiation of the MELECON Conferences. In 2000 he received the IEEE Third Millennium Medal. He received the IEEE Region 8 Volunteer award for 2010. He enjoys Classical Music and Traveling.

Dr. Baal-Schem was Chair of the IEEE Israel Section (1977–1981), Region Conference Coordinator (1981–1993) and member of the IEEE Meetings Committee (1993–2001). He is presently the Chair of the Israel Section Life Members Group and a member of the IEEE History Committee. He initiated the HISTELCON Conferences and co-chaired HISTELCON 2008.