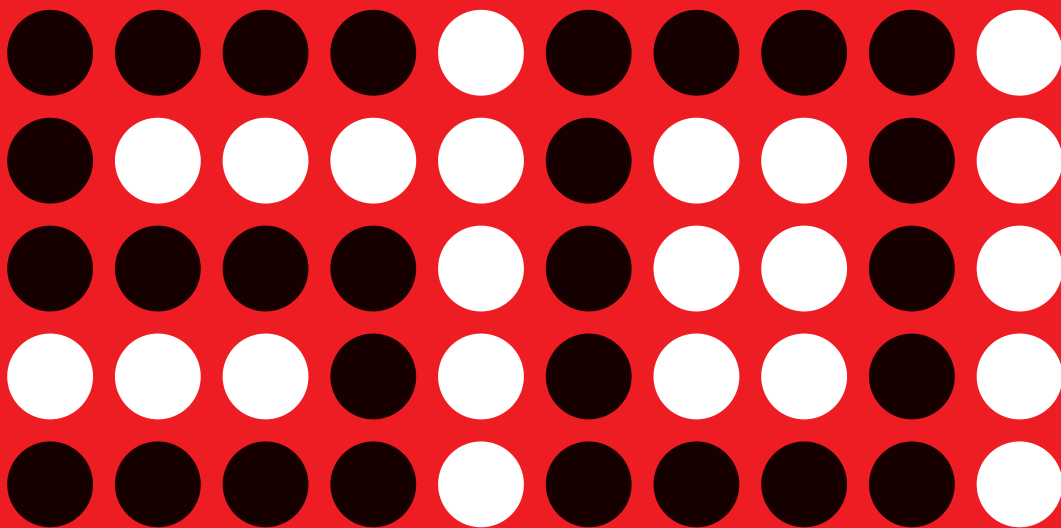




International Ergonomics Association

50th Anniversary Booklet



IEA 50th ANNIVERSARY

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International Ergonomics Association

50th Anniversary Booklet

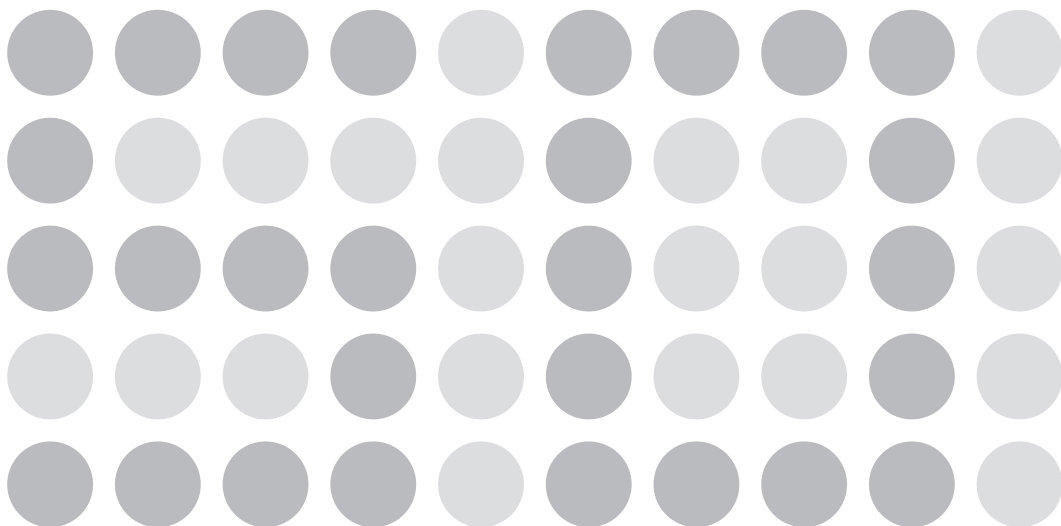
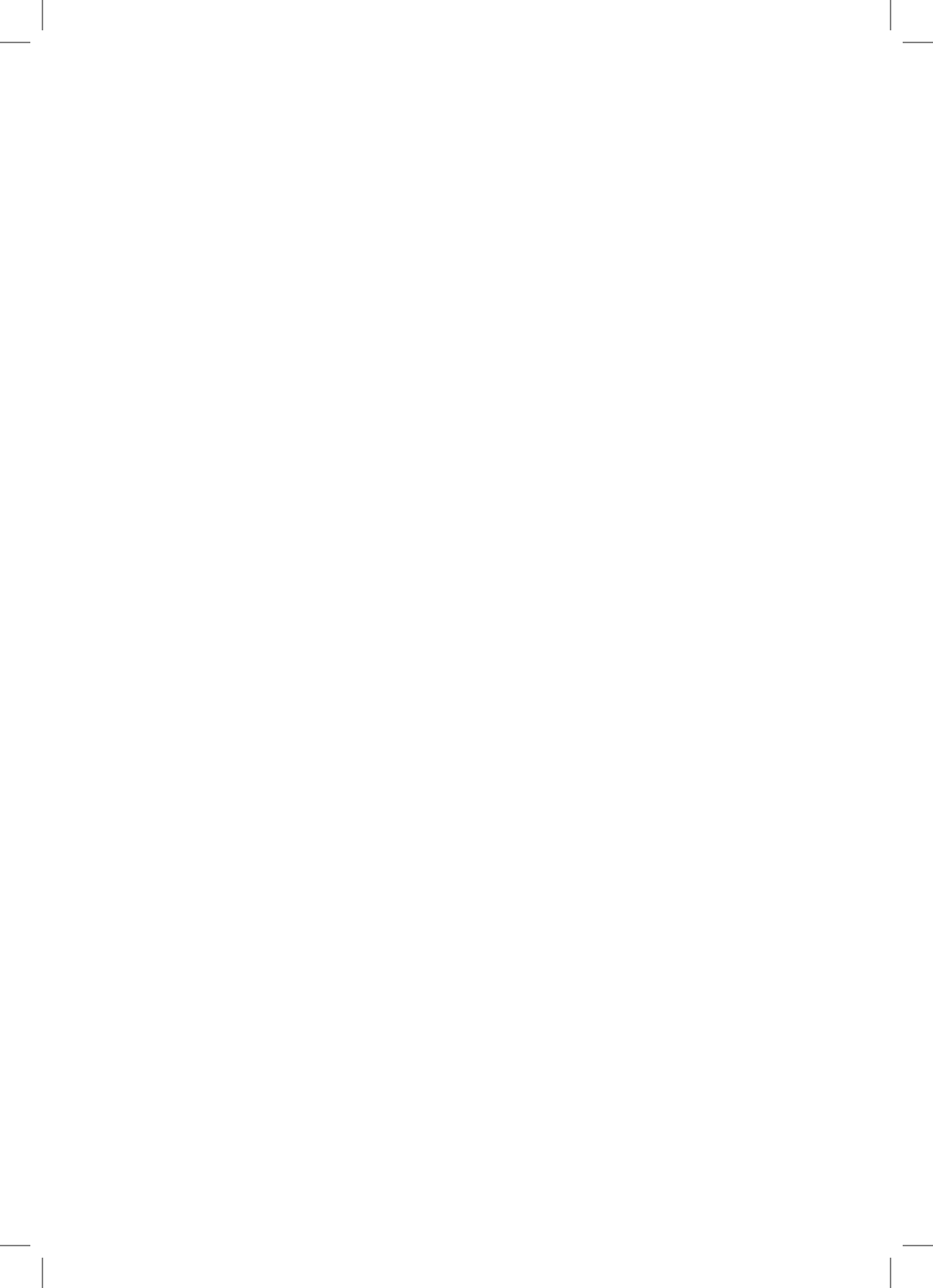




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Message from the President of the International Ergonomics Association

In 1957, a seminar organized by the European Productivity Agency was held in Leyden, Netherlands, on “Fitting the job to the worker”. During this workshop, the decision to found an international association was taken. This organization was to become the International Ergonomics Association. After some years in which the IEA was a society with individual members, it quickly evolved towards a society of societies. Today, 42 national or regional societies belong to the IEA, representing a large portion of the world.

This booklet illustrates the development of the IEA, in a changing world. It shows the gradual expansion of ergonomics over the world, as shown in the maps in the following pages, and the increasing role it plays at an international level. Besides its geographic dissemination, another sign of its growth is the number of attendees at IEA Triennial Congresses, summarized in a table you will find in this booklet.

Past Presidents of the IEA have accepted to bring their wisdom, share the experience acquired during their presidency and propose reflections on the future of the discipline. Ergonomics was born in western countries, i.e. countries with an industrial history, and in a post-war context of reconstruction, search for productivity and economic growth. But the world has changed, and the time line that appears at the bottom of the following pages will show this evolution. Ergonomics faces new challenges, new technologies, new management models, in a global world.

So needs have evolved. But needs are still there, in different shapes. Ergonomics as a discipline and ergonomists as a profession are facing new, challenging demands. The progress made by ergonomics in the past fifty years is impressive. The progress to come will be too.

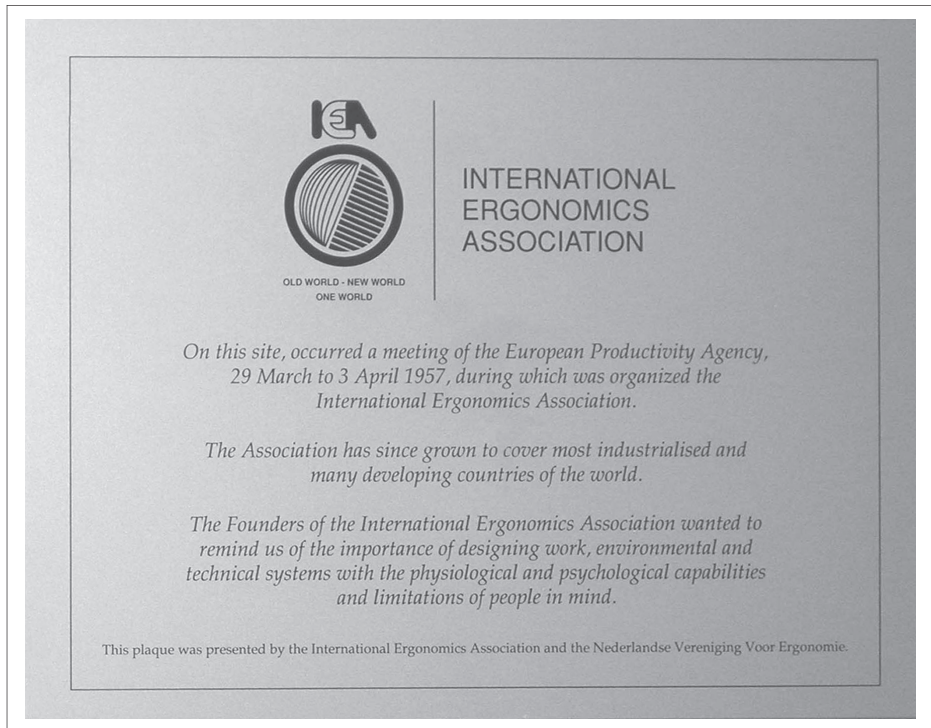
Pierre Falzon

President of the IEA, 2003-2006



Short Chronology of the Founding of the IEA

8



IEA foundation Plaque

-
- 1949** The Ergonomics Research Society, ERS, was founded in England. ERS was the first national (and supranational) ergonomics society. It had a major influence on various events in the founding process of the future IEA.
- 1953** The European Productivity Agency, EPA, started activities to implement human factors in productivity through the “Fitting the task to the worker” project. The aim of these activities was not the founding of the IEA, but they attracted individuals who came to play key roles in the founding process. A number of events synchronized the discussion and debate in the process.
- 1956** EPA fact-finding mission to the United States. Report by Hywell Murrel in 1958.
- 1957** EPA seminar in Leyden, Holland, which is considered as the meeting where actual decisions about exploring the feasibility of an international association were made.
- 1959** EPA conference in Zurich, Switzerland. Participation of various international organisations including employers’ and workers’ representatives. Debate on the name of the future international ergonomics body. Report by Bernard Metz in 1960.
- 1959** Meetings of the steering (preparatory) committee of the future International Ergonomics Association in Oxford, England, in conjunction with the ERS symposium. The steering committee decided on the founding of the International Ergonomics Association.
- 1961** First meeting of the International Ergonomics Association’s General Assembly in conjunction with the first international conference on ergonomics held in Stockholm, Sweden. This meeting formally completed the preparatory phase of the association and started the regular activities of the IEA.
- 1976** A major organisational change took place: the IEA became the association of federated societies worldwide. It ended the period when the IEA was a society of individuals (the federation process started insidiously earlier, but was formally approved in 1976).

1.

Founding of the IEA

*Extract from the 'History of the International Ergonomics Association:
The First Quarter of a Century – Ilkka Kourinka, Editor, The IEA Press*

Mr. Ilkka A. Kuorinka

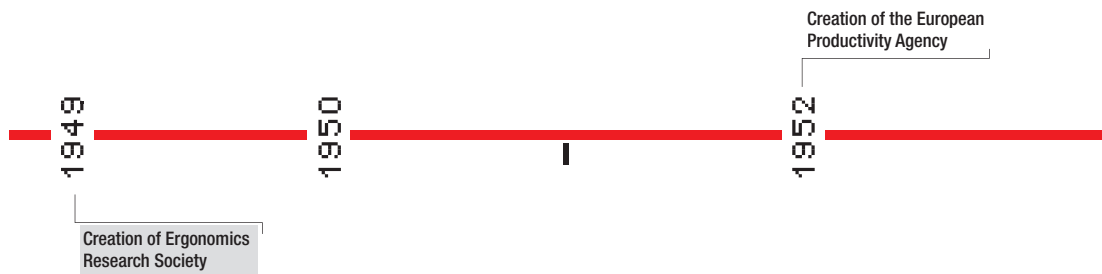
Founding of the IEA was not necessarily a straightforward process, but the result of much debate and energetic promotion of the idea.

The founding of the IEA was preceded by several meetings and initiatives on the part of various individuals. One group seems to have been scholars and members of academia, many of whom had served in the armed forces of their countries and had been working on solving human-related problems, as for example in the design of technical systems and organisations. Others seem to have found their inspiration during wartime and after the war industry. The productivity and social conditions of workers were important issues that shaped ergonomics in the post-war economic, social and political situation.

One of the important players was the European Productivity Agency, EPA, a sub-division of the Organisation for European Economy and Co-operation, OEEC (OECD: anon., 1996). The EPA, founded in 1952, launched a project to introduce human factors into productivity: “Fitting the task to the worker”. In the framework of this project, several meetings and other actions took place and in the preparation of the founding of the International Ergonomics Association.

The Second World War left many countries—on both the winning and losing sides—in bad shape in 1945. The devastated industrial, economic and social structures had to be reconstructed. The Organisation for European Co-operation

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(OEEC, predecessor of the OECD) was one of the players in European reconstruction, closely related to the so-called Marshall Plan. In 1952, the OEEC started a new body, the European Productivity Agency, EPA, which came to play an important role in the founding process of the 'EA.

The efficiency of industrial production was a key concern in post-war reconstruction and rapid recovery. The essential task of the EPA was to improve productivity in industries. The reference point for productivity at that time was the United States, which largely financed the OEEC/EPA. Thus, it is quite natural that in the beginning, the central concern of ergonomics was industrial efficiency.

The EPA organised several meetings and a fact-finding mission to advance the application of human factors in post-war reconstruction. These meetings were consistent with the EPA's objectives and did not anticipate the founding of the 'EA. But during these meetings and as a sort of spin-off, debates and contacts, and ideas about an international association, began to take shape.

Quite interestingly, the EPA had recognized relatively early in 1953 the importance of human factors. Mme Denise Lecoulre was one of the driving forces in the OEEC who decided in 1956 on a fact-finding mission to the USA. A group of nine people (H.S. Belding from the USA was the tenth) representing seven OEEC countries visited various companies, government agencies and universities, meeting colleagues (by the way, the Human Factors Society was founded in 1957) in the United States in the fall of 1956. The results of this mission were discussed at two meetings, in 1957 in Leyden, Holland, and in 1959 in Zurich, Switzerland. It was at the seminar in Leyden that the decision to start the founding process for an international ergonomics body was formally taken. Professor K. U. Smith from the USA has been mentioned as one of those who strongly promoted the idea.

The OEEC and the EPA were not the only actors that influenced the future of ergonomics. The European Coal and Steel Community, ECSC, seems to have played an important role, for example by financing various ergonomics projects. The founding of the International Ergonomics Association had been related to the earlier establishment of another international body, the Ergonomics Research So-

Edmund Hillary climbs
the Everest

Structure of DNA

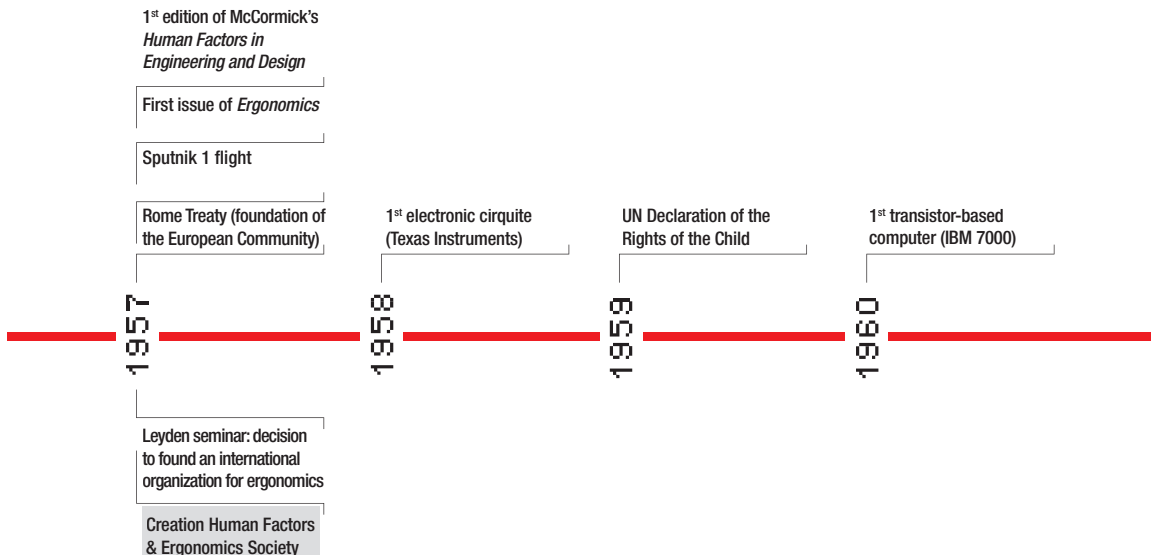
1953

Creation of Gesellschaft
Für Arbeitswissenschaft

1. Founding of the IEA

ciety, ERS (1949; from 1976 The Ergonomics Society) in the UK. The Ergonomics Research Society had, since its founding, attracted members not only from Great Britain, but also from many other countries and had become a truly international body. Already in 1954, the Ergonomics Society planned to have its annual meeting outside the U.K., in Dortmund, West Germany. Although these plans did not materialise, the contacts between the ERS and other European colleagues intensified. The ERS also developed close relations with the EPA, which further intensified its international contacts and activities.

In the nascent field of international ergonomics, there were two trends of different origins: the international dimension of the Ergonomics Research Society, and the EPA activities. These interests progressively converged, for instance because they shared the same people in different phases of the project, as for example R. G. Stansfield, H. Murrel, and others. In 1957 the ERS Council expressed the great international interest in ergonomics and the importance of the EPA project on the European scene. After some debate, the ERS Council agreed that "The Society is willing to co-operate fully in developing and running any international body created to co-ordinate similar schemes" (Edholm and Murrel, 1973). This was an important decision because it allowed a coherent development of ergonomics on the international scene.



Protoergonomics

Monod uses the term “protoergonomics” for the era when ergonomics with its current meaning did not exist, but where we can, however, identify scholars, practitioners and philosophers whose texts clearly contain elements that would today be called ergonomics.

The problem of protoergonomics (and “precursor” ergonomists) is not simply the question of who was first to use the term or concept of ergonomics. The Polish naturalist Jastrzebowski used “ergonomia” in the mid 19th century to generally describe work science in the same terms found in ergonomics today. The general concept of “adapting the work to the man” might be traced back as far as Leonardo da Vinci, to the ancient Greeks and even further.

Therefore, the question of “who was the first ergonomist?” is not terribly important. The interest is in the context in which the concept was invented and in the way it was used. Here Jastrzebowski’s writings get a new dimension. He carried out his activities in the mid-nineteenth century during the period of “techno-optimisme”. Steam engines were the common source of mechanical energy, electricity made its appearance, and railways linked increasingly distant places. It seemed that technology made everything possible. Were Jastrzebowski’s writings a type of criticism or warning about that development, or did he find that technology could not be taken to new heights if the “operator” were not considered? The Polish historians may clarify this for us.

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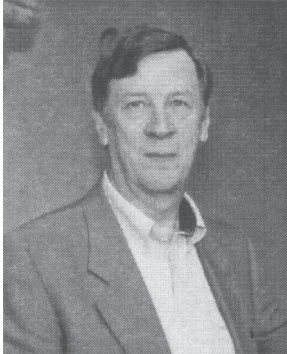
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1. Founding of the IEA



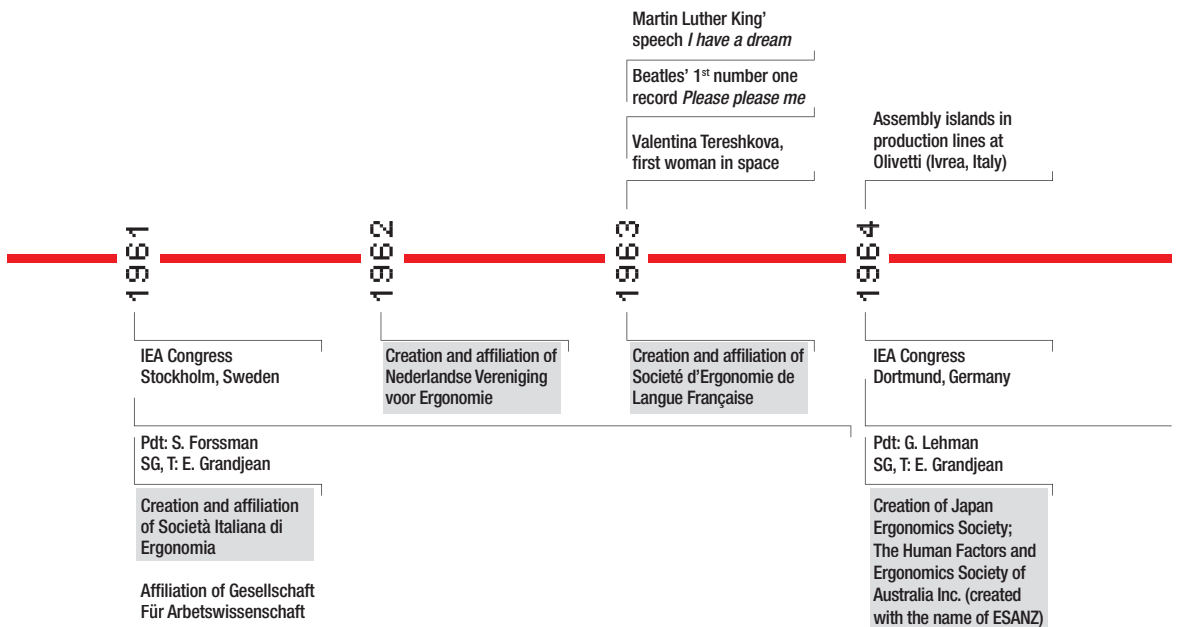
Mr. Ilkka A. Kuorinka,
M.D., Ph.D.

After graduating in medicine in 1967, he worked as a general practitioner, joining the ergonomics unit of the Institute of Occupational Health in Helsinki, Finland, in 1968. He later became the head of the unit. His doctoral thesis in 1976 was on fatigue and EMG in repetitive movements. He did research on the biomechanics and epidemiology of repetitive tasks in an ergonomic context. He was permanent occupational health advisor at Rautaruukki Ltd., a major steel company in Finland from 1970 to 1982.

In 1989 he was invited as a researcher, and later became the director of the Safety-Ergonomics Programme at the Institut de recherche en sante et en securite du travail du Quebec in Montreal, Canada.

Since 1997, he has worked as a consultant and lecturer at various universities and institutions internationally. He is a former president and fellow of the International Ergonomics Association. He was the recipient of the “Grand Prize of the Nordic Ergonomics Society and “Distinguished Foreign Colleague Award of the Human Factors Society”. In 1998, he was appointed Historian of the International Ergonomics Association.

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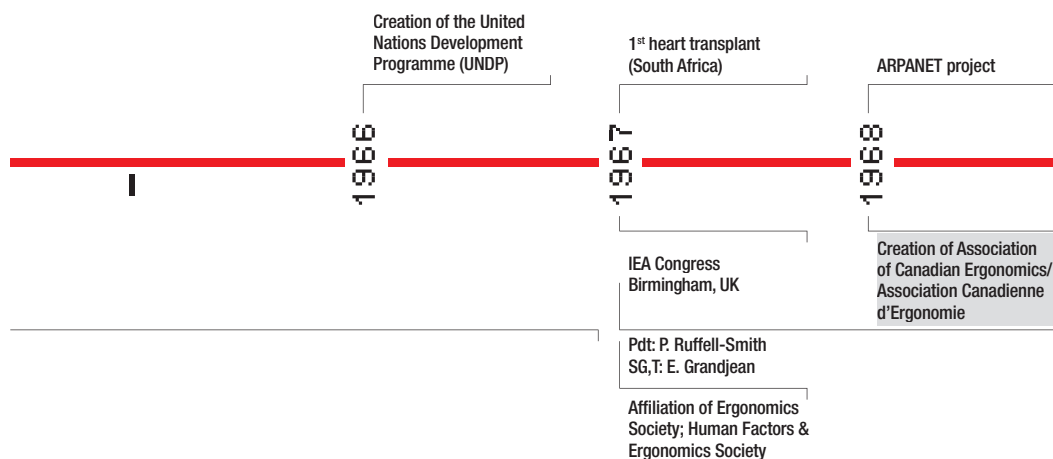
Denise Lecoultre remembers

Extract from the 'History of the International Ergonomics Association: The First Quarter of a Century – Ilkka Kourinka, Editor, The IEA Press

In 1948, \$14 billion was provided by the Marshall Plan. This resulted in the need to found the Organization for European Economic Co-operation (OEEC). The goal of this organization was to help properly carry out post-war reconstruction, by restoring industries, guiding them towards improved work organization, and increasing the competence of their employers in order to improve cooperation on all levels and by everyone. The aim of all this was to increase the economic growth necessary to reestablish devastated countries (by then, the target growth was 6.5%). To help achieve these goals, OEEC established a special agency, the European Productivity Agency, in 1953.

At the end of his mandate in 1959, the director of the EPA, Roger Gregoire, wrote a 200-page report, the "Repertoire des Activites de l'Agence". It is regrettable that this report has not been published. In any case, I will concentrate here only on ergonomics questions.

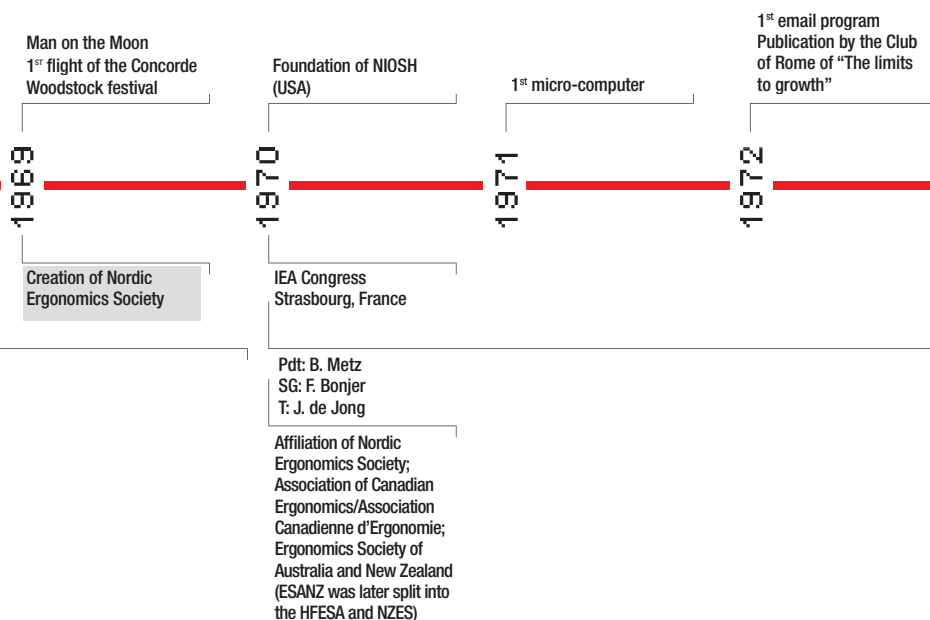
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At the time of the dissolution of the EPA, the OEEC was no longer only “European” because new members such as Australia, New Zealand, Japan and the founding member, the United States, joined the organization. When I left, the Organization consisted of 24 member countries, with Yugoslavia being, with a special status, the only country from the “Eastern Bloc”. Since the organization was no longer strictly European, its name was changed to the Organization for Economic Co-operation and Development, OECD. OECD is an intergovernmental organization that is not part of the United Nations, in contrast to the specialized agencies such as the World Health Organization, Unesco, the International Labour Office, the ILO, and others. Nor is the OECD tripartite, according to the “constitutional” meaning of the term. However, it consults employers’ organizations through the Business Industrial Advisory Committee of the OECD (BIAC), as well as workers’ organizations through the Trade Union Advisory Committee of the OECD (TUAC).

Before ending these preliminary remarks, let me mention—for history—that in 1926, a Swiss expert Leon Walther published “La technologie du travail industriel” which included an important bibliography on studies in the fields of psychology, physiology and psychopedagogics. The oldest publication appearing in the list and dated 1883 was that of F. Galton, “Inquiries into Human Faculty and its Development”. By the way, you may be aware that volume number 6, page 404, of the Encyclopaedia Universalis contains a rather detailed article on the history of ergonomics, mainly in the United States. The OEEC created the European Productivity Agency in 1953, which established a working group intended to investigate human factors and productivity. A distinguished member of the Ergonomics Research So-

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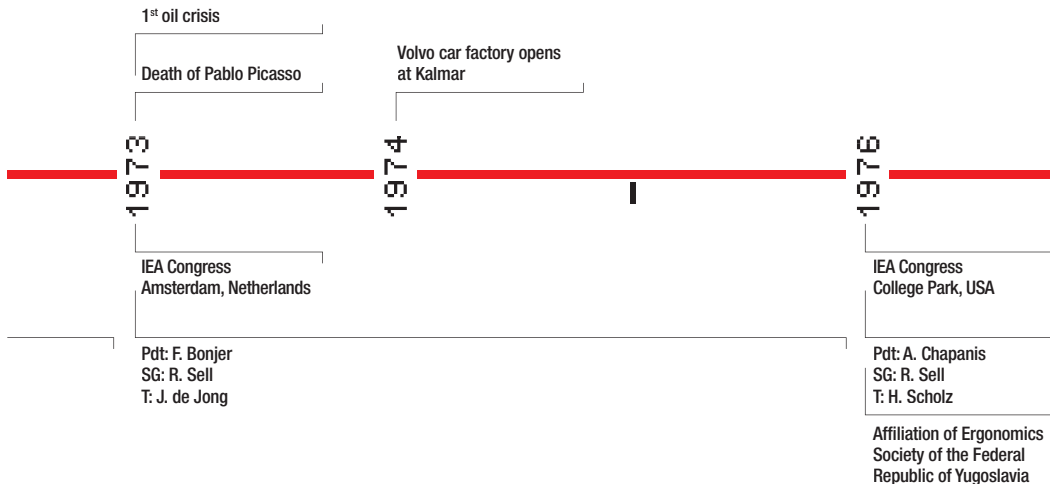
ciety, Ronald G. Stansfield (who worked extensively on the establishment of the International Ergonomics Association, proposed that ergonomics investigations and expert groups should be included in the EPA program. A clarification of the term was needed because most of the working group members did not know exactly what the term included. The first action of the European Productivity Agency was to send three experts, namely M. Friedberger (Austria), R.G. Stansfield (UK) and M. Bougné (Belgium) to the Austrian Alps in order to compile an operational definition of “ergonomics”. Such a definition should be useful in drawing up proposals on multidisciplinary and international investigations. Based on the reflection of the three experts, the working group on human factors preferred to drop the term “ergonomics”. In order to be better understood by the outside world, the working group adopted the term “fitting the job to the worker” (“adaptation du travail à l’homme”).

The objectives of the working group’s program were defined as follows:

1th To gather the acquired knowledge in the various disciplines in order to understand how to improve both physical and mental working conditions. By that time, the disciplines included time and motion studies, psychology, occupational medicine, industrial environment and hygiene, accident prevention and lighting technology.

2th To create a true interest on the part of industries in a better adaptation of workplaces to the workers’ capacities and in understanding how to apply biological sciences to the man-machine tandem for better harmonization of functions. All this had the goal of improving the workers’ wellbeing and industrial productivity.

The launching of this program “Fitting the job to the worker” was well received



by all parties, namely employers' and workers' representatives, as well as the scientific community. Approval was also obtained from the national authorities of the participating countries. An excellent expert group was then consulted during all phases of the program.

First stage: Mission to the United States

Interest in ergonomics had grown in the USA during the war, particularly concerning practical applications. For example, aircraft cockpits' increasingly complex instrument panels had been the cause of problems and accidents. In an emergency, various specialists had had to intervene to improve military planes' instrument panels and the entire pilot working space.

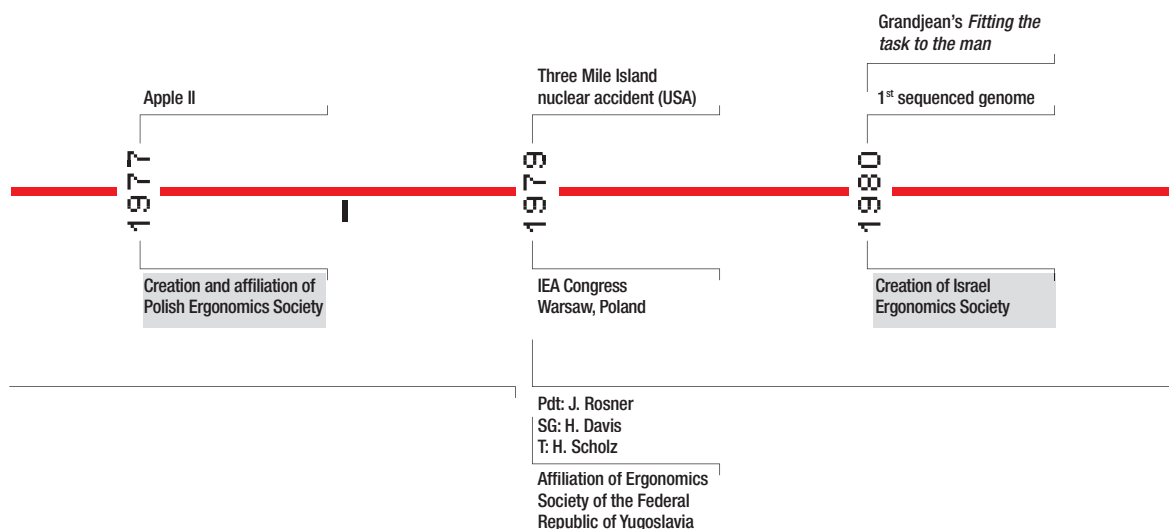
Therefore, in 1956 it seemed to be appropriate to start the EPA's program through a mission to the USA.

It became an international mission of nine European experts (from Austria, France, Germany, Italy, Norway, the Netherlands and the United Kingdom) as well as one representative from the European trade unions. In 1958, M.K.F. Murrell wrote a report on this mission, organized and conducted by Professor Belding (USA). The group was able to collect extremely important and mostly firsthand information for the "fitting the job to the worker" program.

The report deals with themes such as the design of machines and tools, anthropometrics, physical and nervous fatigue, noise, vibration, and lighting. In addition, the mission touched on questions such as work accidents, aging, radiation and deleterious psychological effects.

The participants appreciated the opportunity to exchange information, which they could continue to do more or less regularly after the mission and throughout the

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European Productivity Agency's existence. They became very useful consultants in further developing the Agency's program.

Second stage: Technical seminar – Leyden

Experts from eleven European countries, including Switzerland, gathered at a seminar held in Leyden, the Netherlands, in 1958. Professor G.L.E. Burger chaired the seminar. The aim of the seminar was to analyze existing knowledge in the research centers of various countries to determine whether it was sufficiently concrete and relevant to be used by the employers' and workers' representatives

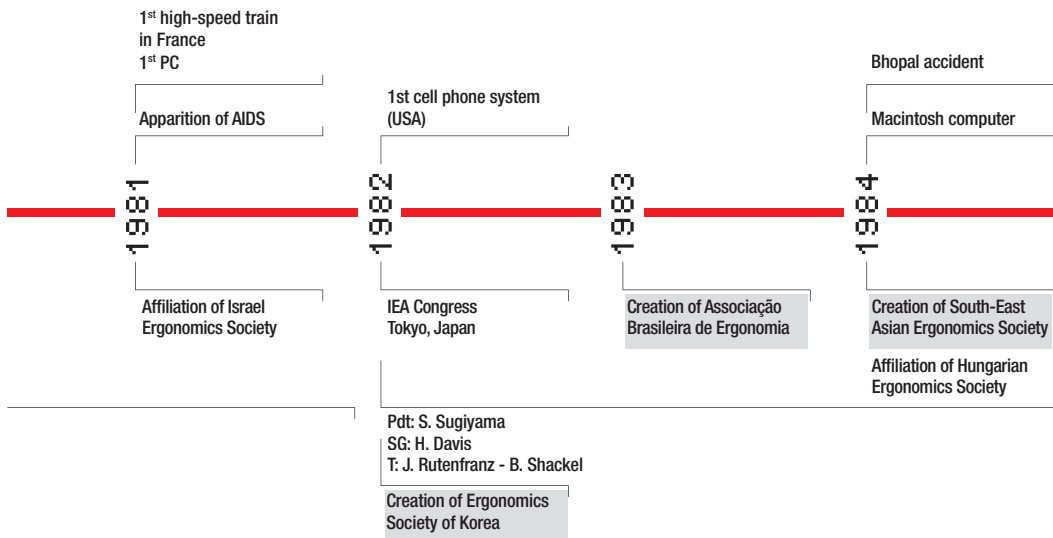


for practical implementation in workplaces. The answer was positive; a tripartite conference was therefore organized in 1959 in Zurich, Switzerland.

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Third stage: Zurich tripartite conference

At the conference held in Zurich (March 2-6, 1959), there were 200 participants from the following countries: Austria, Belgium, France, Germany, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom, the USA and Yugoslavia. International organizations were also represented: the International



Labour Office (ILO), the World Health Organization (WHO), the European Coal and Steel Community (ECSC), the European Economic Community (EEC), as well as employers' and workers' organizations. The aim of the conference was to present to the participants, designs of machine-tools, weaving machines, and cars in fact, examples of applications of ergonomic principles.

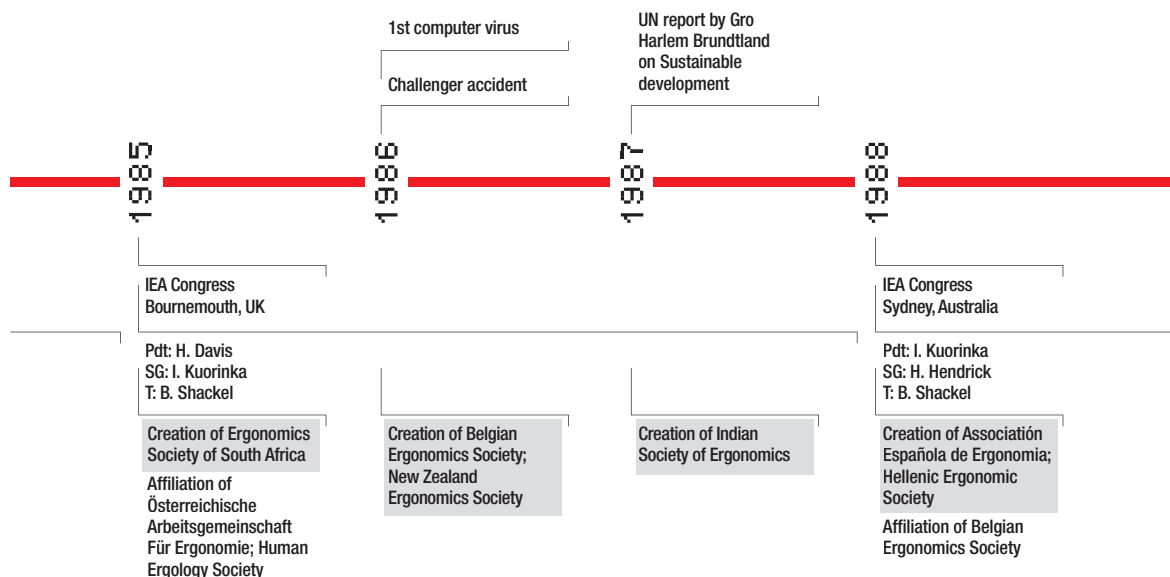
The conference was held at the Ecole Polytechnique Federale de Zurich (Eidgenössische Technische Hochschule, Zurich, ETH) and its chairman was Professor Daenzer. An exhibition was held in the auditorium of this school. Various ergonomic achievements were presented: looms, vehicles, workplaces, etc. The Swiss had every reason to be proud: the ergonomic message had crossed the threshold.

Professor B. Metz from the University of Strasbourg, France, wrote the report, which was published in 1960.

Fourth stage: seminar for Engineers – Liege

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To follow up on the recommendations of the conference in Zurich, a seminar for engineers was held in Liege, Belgium, from September 5-12, 1961. The chairman was Professor Coppee from Belgium. The Zurich recommendations stated that engineers have an extremely important role in the application of ergonomics principles to work. However, the programs of overcrowded technical universities and schools remained silent about the diverse factors in "fitting the job to the worker". Consequently, when engineers had to design machines and tools, they did not take human factors into account. There were 54 participants and 19 representatives from international organizations. The seminar program was concentrated



and very professional. The aim was to attract the attention of the management and teachers of technical universities and engineering schools to the necessity of integrating ergonomic elements into the curricula. This should allow engineers to take ergonomic principles increasingly into account in designing machines and tools. A report on "Fitting the job to the worker" (seminar for Engineers), written by an English ergonomist, S. Laner, was published in 1963.

In 1960, the European Productivity Agency, EPA, had come to the end of its six-year mandate and its director, Roger Gregoire, retired. We owe him posthumous thanks for his support in the "fitting the job to the worker" program. The EPA had fulfilled its role in giving ergonomics an international dimension. The International Ergonomics Association was founded in 1959 and Professor Etienne Grandjean from the ETH was its first secretary general.



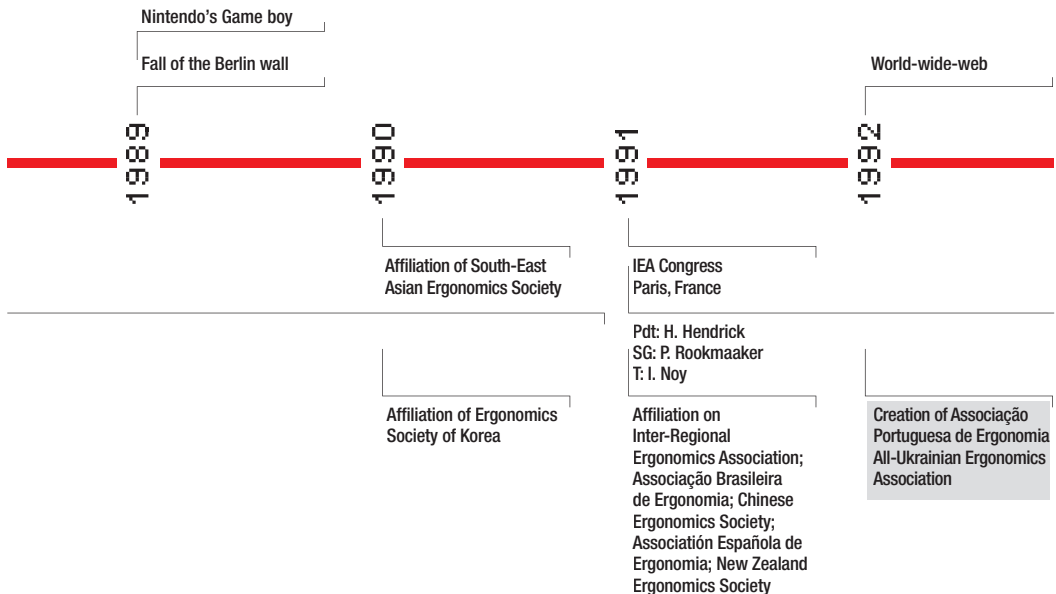
After having completed her basic education in Geneva, Switzerland, Denise Lecoultre entered the University of Geneva where she studied social sciences and economics. After the war period, she went to the United States in 1949 to study sociology and political science at the University of Washington, in Seattle.

On her return to Geneva, she worked in 1951-1952 as a consultant for the International Labour Office, but moved

Denise Carmen Lecoultre

M.A., University of Washington, Seattle

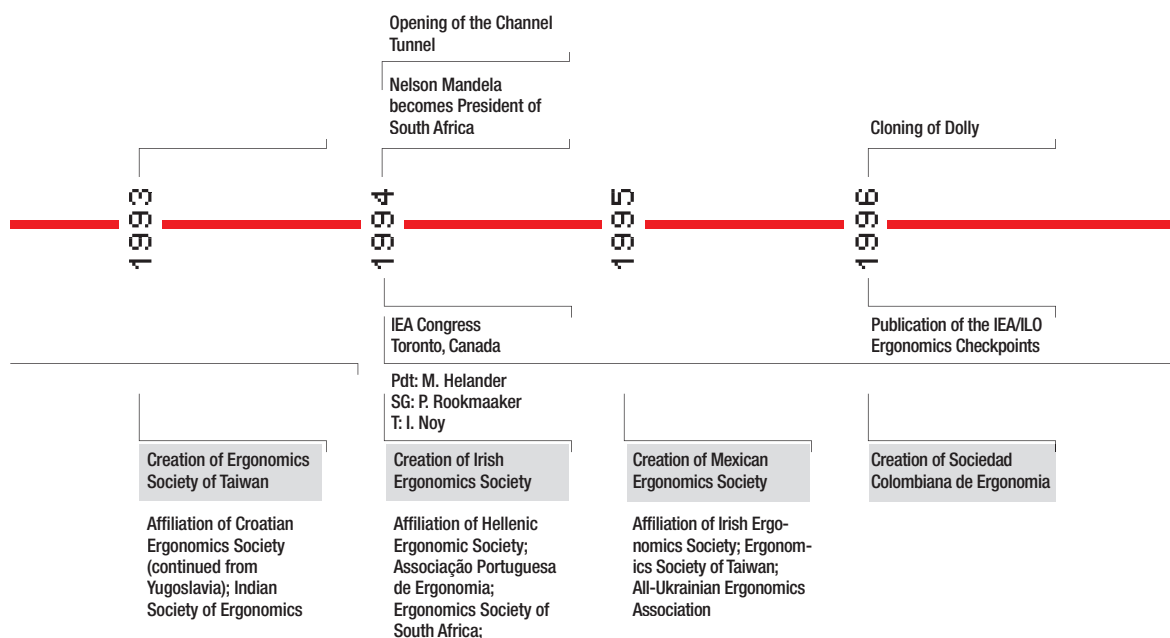
licentiate in Social and Economic Sciences, Geneva



2. Denise Lecoultre remembers

in 1953 to the Organisation for European Economic Co-operation, OEEC, in the framework of the Marshall Plan. She was invited to OEEC's division, the European Productivity Agency, EPA, where she became head of Section III, Division B, Human Factors, as well as that of Economic, Human and Technical Factors. It was in that context that she organized several ergonomics-related activities, as for example, the tripartite conference in Zurich (1957), the seminar on human factors for engineers (1961), as well as various missions, consultations, etc.

In 1960 she moved to UNESCO, where she was responsible for various work-related programs. In 1963, she returned to the OECD where she became principal administrator of the Social Affairs Division. She retired from the OECD in 1984.



3.

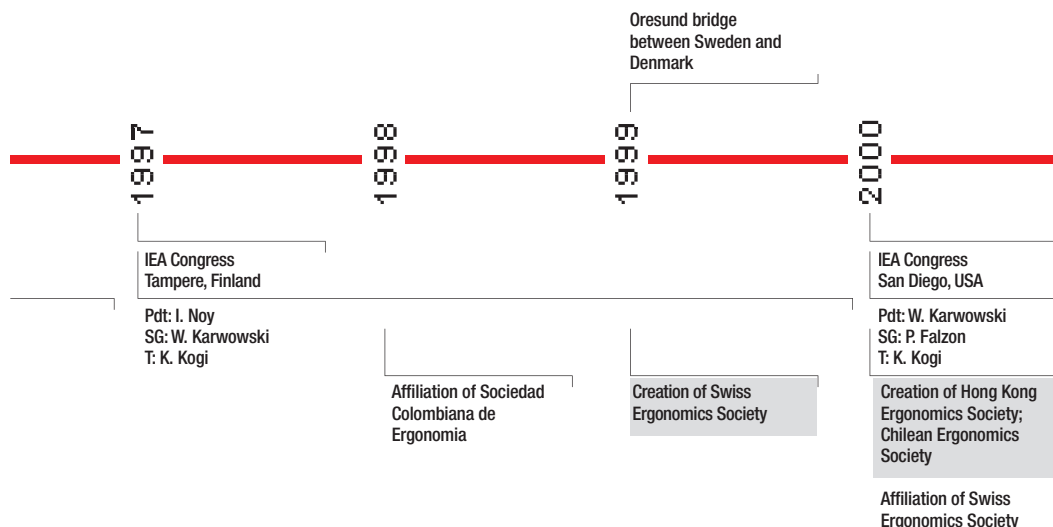
Statement of the International Ergonomics Association (IEA)

In 1957 the European Productivity Agency organised an international Seminar on the subject of “Fitting the job to the worker”. This was held at the Netherlands Institute of Preventive Medicine in Leyden and some 70 experts from the European countries and the U.S.A. took part.

Scientists from different disciplines including physiology, anatomy and experimental psychology discussed the application of biological sciences to the problems of human work and the optimal use of human abilities. The seminar urged the formation of a permanent international scientific body which would establish and maintain international contacts between scientists interested in this subject and nominated a steering Committee which was charged with the task of preparing such an international organization.

The Committee nominated Prof. G.C.B. Burger (Eindhoven, Holland), as its Chairman, Prof. E. Grandjean (Zurich, Switzerland), as its Secretary and Prof. K.U.

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3. Statement of the International Ergonomics Association (IEA)

Smith (Madison, Wi, U.S.A.), as its treasurer. The other members are Prof. H.S. Belding (Pittsburgh, U.S.A.), Prof. G. Lehmann (Dortmund, Germany), Prof. N.P.V. Lundgren (Stockholm, Sweden), Dr. B. Metz (Strasbourg, France), Mr. R.G. Stansfield (London, England).

There are already international organization dealing with some aspects of ergonomics or human engineering, but there is no such body specifically and exclusively taking care on an international basis of all the sciences which are involved. The Committee therefore came to the conclusion that the creation of an international body is highly desirable and necessary for the further development of this field of applied science.

The aims and objects of the organization now planned are the promotion and development of the biological sciences applied to human work on an international level especially by facilitating contacts between scientists by organising international congresses and seminars. It is also intended to encourage the spread this knowledge among physicians and engineers working in industry and among industrial management and employers' and workers' organizations.

The organization is therefore designed to further two types of communication: between scientific disciplines and between science and industry, both on an international basis.

Experience has shown already that worker and production both generally profit from scientifically based working methods. The Association desires to found its activities on objective scientific study of human activities and human reactions, free from any direct influence of an economic character, leav-

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Creation of Iranian
Ergonomics Society

Affiliation of Hong Kong
Ergonomics Society;
Mexican Ergonomics
Society

Creation of Association
de Ergonomia Argentina;
Union of Latin-American
Ergonomics Societies

Affiliation of Chilean
Ergonomics Society

IEA Congress
Seoul, Republic of Korea

Pdt: P. Falzon
SG: S. Bagnara
T: K. Laughery

Creation and affiliation
of the Federation of
European Ergonomics
Societies

Affiliation of Association
de Ergonomia Argentina;
Iranian Ergonomics
Society; Philippines
Ergonomics Society

Affiliation of Union
of Latin-American
Ergonomics Societies

ing the matter of application to those responsible for the conduct of industry. The changing demands of modern industry, the increasing application of mechanization and automation and the concept of constructive medicine aiming not only at the prevention of disease and accidents, but also at the realisation of health all focus attention on man as necessarily the central object of interest in the study of industrial performance.

2006

IEA Congress
Maastricht, Netherlands



4.

Presidents remember

Bernard Metz (1970-1973)

My election as President took place at the end of the 4th Congress of the I.E.A. held in Strasbourg on July 6th to 10th, 1970. It had been prepared with the help of H.P. Ruffel-Smith, I.E.A. President since 1967 and of John FOX, main organizer of the 3rd Congress held in Birmingham.

The Congress was opened by the Minister for Labor and Employment of the French Government Joseph Fontanet, with a speech proving his pertinent understanding of the bases and goals of Ergonomics.

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Three major I.E.A. enterprises have required attention, negotiation and time during this term.

The first one has been the preparation of the 5th I.E.A. Congress scheduled in Amsterdam for July 1973. I thus participated in several meetings, held at Schiphol Airport, with its Organizing Committee. Two of its members were already officers of the I.E.A. : Frederik Bonjer as Secretary General, John de Jong as Treasurer. As a matter of fact, Frederik Bonjer was tacitly nominated for becoming the next President of the I.E.A., a function for which he was well fit : he had been in 1956, with Hywel Murrell, Tom Singleton, myself and 5 other experts, a member of the 2 months mission to the USA entitled "Fitting the job to the worker" organized for the European Productivity Agency by Denise Lecoultre, in cooperation with the Department of Labor of the U.S. Government and an american counselor, Harwood Belding, an applied physiologist.

The second major action was a satellite symposium on "Standardization" to be held at the Department of Human Sciences of the University of Loughborough in charge of its organization. It was an answer of the I.E.A. Council to a proposal from its West-German members to produce international standards in Ergonomics, generalizing what was already done in the German Federal Republic. As issue of extensive discussions, I.S.O. (International Standardization Organization) set up Technical Committee 159 "Ergonomics", of which eventually national standards institutions of all developed countries became members.

The third major action was launched unexpectedly in the spring of 1972, when an invitation to attend in Moscow on the end of July, the First Ergonomics Conference of COMECON countries was simultaneously received by Alain Wisner as Past-President of SELF and by me as I.E.A. President. As a matter of fact, this invitation was in reciprocation, by Boris Lomov and Vladimir Munipov, for the means we had provided in 1970, to a number of East-European delegates to attend the 4th I.E.A. Congress in Strasbourg.

During the Conference, we both were given opportunities to meet separately and without visible soviet-russian attendance, every national delegation in order to discuss their eligibility as I.E.A. federated societies, taking into account the basic criteria of free membership and free election of society's officers. These had been clearly exposed in my address on behalf of the I.E.A. to the inaugural plenary session of the Conference. Progressively the eligibility conditions were reached in several COMECON countries, first in Poland where the 7th Congress of the IEA could be held in August 1979 thanks to courageous polish colleagues convened by Jan Rosner (future I.E.A. President) and Andrej Oginski.

During the three years briefly evoked in this note, many more actors than those quoted had deserved to be named. Yet the names cited are those I remember most strongly without consulting the archives of the I.E.A.. They are the names of true companions sharing ideals beyond the mere market-value of Ergonomics.



Sadao Sugiyama (1982-1985)

Thirty years have gone by since I was first involved in the IEA activities and twenty years after my retirement from the IEA office. Throughout the past half century, all kinds of technologies in every sector of industries in our society have been developing rapidly, and that intentionally. We hoped and believed that industrial society would bring prosperity to human race. The result is, however, that now we must reconsider our principles: have we rightly intended in order to comply with the newly contrived philosophy arising from the rapid social change?

Before my time, IEA had organized successive congresses in the European continent from the beginning up to the 1976 Congress in Maryland, U.S.A. and the 1979 Congress in Warsaw, Poland. Indeed, IEA's activities were rapidly expanding and world-wide. As it was, the members of federated societies might have felt a certain psychological distance. So the 1982 Congress was held in Tokyo, Japan, the first congress in Asia. It was my honor to serve as the president from 1982 to 1985, when the next congress was held in Bournemouth, England. During the early stage of IEA, IEA activities were closely related with that of WHO, ILO, and ISO. I thought it was necessary to renew the ties with other international organizations, as well as with unaffiliated ergonomics societies. While I was in the IEA office, I accepted an invitation from the ergonomics society in Prague where the countries in the socialist bloc held their meeting. I gave some official greetings as a representative of IEA. Surprisingly, 15 national flags were displayed with the national flag of Japan for me. I heartily hope that those groups are the members of IEA now. Another thing which we planned was to organize sectional meetings in Hawaii in between the triennial congresses in Hawaii. Two sectional meetings have been developed since then.

Now I want to express my vision of future ergonomics from my past experience. As you may notice, the development of ergonomics has naturally depended heavily upon the change of human society. Physical labor has been decreasing while intellectual work has been increasing more and more because of the ever developing science and technology, such as computer science and robotics. Accordingly, the structure of human society has become extremely diversified, mechanized, and automated. Human work system has become unnecessarily too complicated and sophisticated to be accomplished easily by people's stereotyped skill obtained in the past training. Therefore, more and more intellectual ability to learn entirely new skill is needed.

Another aspect suggests in scientific and technological concepts are frequent alternation of unification and separation occurring in society, organization, the system of tasks, and even in workers' ability. In addition to the above, another related social and world-wide problem is the environmental factors, arising from the long

time acceptance of excessive social demand. Now human society has come to understand the limitation of ecological capacity of the earth. Molecular, chemical and biological sciences and technologies are becoming urgent in order to secure our living environment. I believe human science and technology, such as ergonomics, must be with those areas of study in order to solve this serious future problem. Mass destruction of the social system, shortage of necessary materials, such as air and water, food, energy, etc., and also an excess of unnecessary wastes, are our human responsibility to solve. There are so many unknown and unsolvable matters and phenomena existing in front of us, such as rapid growth of human population, however, those matters and phenomena must be sometime in future solved by sciences and technologies.

After my retirement from the IEA office, I have been engaged in such a human-social-ecological area of research and in promotion of ecological engineering, and I came to think that this era does not require the human society an excessive demand based on the egoistically human-centered purposes. Thus, I believe that our technological system, such as production of goods, must make a balance with ecological capacity from the very early stage of the system design. I am still trying, firstly to find the right answer to the problems that arose from the past development of technology and secondly to find the scientific roles in order to create the new scope of “the human in future healthy ecological environment.”



Ilkka Kuorinka (1988-1991)

In the past twenty years, industrialized countries have encountered a new economic and social life megatrend, a globalized market and neoliberalism. The structure and location of industrial production and services, work tasks and their content are about to change radically. Without a doubt, ergonomics is also facing changes and new challenges. In a few words, the contents of the neoliberalistic trend (as seen through an ergonomist's eyes) can be outlined as follows: Traditionally paid labor has been structured around employers' and employees' roles. The employer took care of the working tools, work organization, the work environment, and obviously, paid the salary. The employee was supposed to do a "fair day's work". The employee also demanded decent working conditions and wanted continuous and predictable employment with an optimal work exchange ratio (working conditions, pay vs. decent life).

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Now it seems that the employer – employee setting is about to change, with the employer function and entrepreneur responsibility tending to become delicate. The organizations want to concentrate on their essential business, by outsourcing less important work to other companies that supposedly do the task more efficiently. The proportion of part-time employees is increasing and full-time salaried employees are supposed to enter into an ongoing competition situation to keep their expertise up to date and their portfolios well padded. To paraphrase John Kenneth Galbraith: earlier St. Peter might have been content asking at the gate to eternity what the candidate had done to increase the GNP, but now he asks what qualities the candidate had improved on earth to be useful at work.

The reason for the neoliberal metamorphosis is basically to improve the use of resources – as such, this is nothing new – but the overriding goal now is to increase the profit of capital investment. Earlier, a decent profit was 5 % or so, but nowadays the goal is 15 – 20%. Lazy money is definitely out. If the yield is not sufficient, investors will withdraw.

The pros and cons of the consequences of neoliberalistic economics' trends have been widely analyzed and results largely mediatized. From ergonomics' point of view, no clear image of eventual future threats or positive opportunities can be outlined. On the macroeconomic level, opinions published by OECD seem to admit that problems may appear but that positive effects are sufficient to counteract them. The International Labour Organisation, ILO (IEA is NGO in ILO!) seems to be worried about the neoliberalistic trends, but also their point of view is on a macro level. Howard Stein, the organizational consultant and a critic of neoliberal trends, criticizes the development that occurred in the US in 1980 - 2000 as a threat to human dignity when employees were considered exclusively as an item of cost that can be sacrificed to competition and proprietorship values.

Parallelisms between participatory ergonomics and neoliberalistic work organization

In the 1980's a new term appeared in the ergonomics' vocabulary: participatory ergonomics. The background was an increasing awareness of Japanese industrial work organization, which proved to be efficient. It also stressed the need for worker participation. Quality circles, Toyotisme, autonomous groups, and empowerment were some of the concepts promoted. The "Participatory Ergonomics" of K. Kogi and A. Imada showed that links existed between ergonomics and the new forms of industrial work organization. It also showed that these forms of organization were an efficient means of improving production and that the experience could be transferred to North -American industrial culture.

The criticism of Taylorism had already in the beginning of the twentieth century shown the harmful effects, both psychological and physical, of parcelized and monotonous work, alienation, lack of autonomy, etc. Participatory ergonomics aimed to improving working conditions by attacking the tayloristic elements in the workplace. The means consisted of eliciting the workers' and supervisors' intimate knowledge of the work through various group working techniques. The result was supposed to lead to an broader enlarged role for of workers in the re-design of work and organization. The debate about the ownership of results, "democratization" of job, and collective workplace redesign, etc., seems to have remained relatively rare amongst ergonomists.

Whether participatory ergonomics was largely accepted and used is not known. It did not become a megatrend but neither did it fade away, as shown by the number of scientific publications.

The interesting point is that participatory ergonomics promoted the same features as does modern neoliberalistic work organization: freedom from time pressure, less control by direct management, and the possibility of organizing one's job according to the needs. The proponents of participatory ergonomics may not have noticed that follow-up and control of results became reciprocally more tighter.

In the new situation, the employee becomes – be it via neoliberalistic or participatory ergonomics work organization - a self responsible entrepreneur-worker. The company withdraws to the background while the planning of work, the ordering of the material, responsibility for quality, and the care of customer relations remain the responsibility of the entrepreneur-worker. The supervisor support, and training in the task may or may not be available to the entrepreneur-worker. It should be noted, however, that half of the employees are willing to choose a self responsible job. Some feel that it fits their mentality or that it is compatible with their life situation.

Many of the above points seem to be a response to Taylorism's critics and along the lines of participatory ergonomics' recommendations. They have also been shown to improve work efficiency.

But the negative aspects – proven or presumed – are also numerous. The company/employer tends to withdraw from immediate responsibility: "You may do the job as you will, as far the results are there." The objectives can be negotiated, but if they are not reached there is no safety net. Entrepreneur-workers seem to do more unpaid overtime than in more traditional jobs. According to the case studies, burn-out is common.

Industrial jobs are not the only ones involved. Nor are negative effects limited to the lowest level of organization. Actually the middle level of the organization is the main target, and middle management does not escape either. Many service occupations are also affected, especially in health care, information technology etc. The full picture of the situation is not available.

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Ergonomics in the face of neoliberalism: Observer or initiator?

What could be the role of ergonomics in the new situation? To remain an observer or intervene as circumstances require, or take a proactive stance, trying to predict problems and identifying corrective means? Whatever the choice, it should be understood that classical ergonomics' intellectual tools and concepts, which concentrate on workplace issues may not be sufficient to deal with new problems in work organization and working life. The boundaries between neighboring scientific domains may have to be crossed. Organizational psychology and elements of cultural anthropology (sociology) are the first two walls to come up against.

The second question deals with the role of traditional ergonomics' interest areas in the new situation such as biomechanics, applied physiology or sensory psychology. Do VDU workplaces still interest researchers? What about tools?

The author of these lines thinks that ergonomists should begin to reflect on what role to assume, passive or proactive, with respect to the novel work organizations created by neoliberalism. An entirely passive stance might lead to missed important opportunities. An opposite position might require making a quantum leap to scientific areas where ergonomists generally have little experience. Even in a successful case, the risk is that some traditional interest groups would not be willing to follow, and ergonomics might lose them.

Hal W. Hendrick (1991-1994)

Perhaps the most significant accomplishment during my tenure as IEA President was a 78% increase in the number of Federated Society Members, from 18 to 32. As a part of this effort, during both my tenure as Secretary General from 1988–1991, and as President from 1991-1994, I engaged in an active outreach program, visiting many of the existing Federated Societies and societies that subsequently became Federated Members.

A second accomplishment was the expansion of the IEA Science and Technology Technical Committees from an original group of eight to twenty-one. In addition, activities of the Technical Committees expanded, including several Technical Committees helping to organize international conferences on specific topics (e.g., the ODAM TC helped organize the highly successful 4th ODAM International Symposium in Stockholm in 1994, and began work on organizing the 5th ODAM, which took place in Breckinridge, Colorado, USA, in 1996). Much of the credit for this expansion of the IEA Technical Committees and their activities goes to the leadership of Prof. Martin Helander, who chaired the Science and Technology Committee, and followed me as IEA President.

Three other accomplishments were (1) the development of the IEA/ILO Ergonomics Checkpoints, which subsequently was completed and published in 1996, (2) the carrying out of a very extensive IEA written survey, completed by the Federated Societies, and the results subsequently analyzed and published in 1996, and (3) establishment of the President's Award for recognizing persons who have made outstanding contributions to ergonomics, or the furthering of ergonomics, that do not clearly fall into one of the other IEA Awards categories

Other accomplishments of note were those of the Professional Practice and Education Committee, under the leadership of the Committee's Chair, Prof. Margaret Bullock. These accomplishments included (1) development and presentation of two IEA traveling seminars in SE Asia, (2) development of a set of guidelines for Federated Societies to use in developing their own codes of professional practice, (3) initiating the development of the IEA Ergonomics Core Competencies Document to assist Federated Societies in developing professional certification and education programs, as well as other uses, and (4) initiating the development of criteria for IEA endorsement of national and regional professional certification agencies and programs in ergonomics.

The Future. From my perspective, in light of the rapid and continuing changes in technology, in the nature of organizations and work, and globalization of all industries across nations and cultures, the need for ergonomics internationally is greater than ever. The IEA and its Federated Societies and their members have the

potential to improve the human condition and add value to the design of systems, equipment and products that far exceeds the capability of any other profession of equivalent size. Yet, to reach our potential, our greatest challenge is to raise the consciousness of government and industry decision-makers of the value added of ergonomics – and that good ergonomics is good economics. This is particularly difficult for so small a profession with limited funds, yet it is essential that we find ways of meeting this challenge.

Martin Helander (1994-1997)

In 1994, at the beginning of my term as President, I suggested ten priorities for the work of IEA (Helander, 1995). At the end of my term I revisited these goals. Several were achieved during my term. There were also some long term policies which IEA should consider for the future.

1. IEA is the only global organization in ergonomics and must take a global responsibility. IEA must support ergonomics globally. Partnerships with other international or regional organizations are important for collaboration, such as United Nations, the European Union, and ASEAN. Few of them employ ergonomists. Their awareness must increase and IEA may look for opportunities to train employees of these organizations. I taught a course in Ergonomics to Employees of UNDP in New York City. They were interested – however naïve about the tools and methodologies that are available to an ergonomist. During 1996-1997 our contacts with ILO and WHO improved. This is partly because some new officials at ILO and WHO are supportive of ergonomics. IEA also benefited from the joint publication with ILO of Ergonomics Checkpoints in 1996. One problem in maintaining contacts with international organizations has been their frequent reorganizations, shifting levels of funding and change of personnel. We can, therefore, not wait for them to take the initiative. Rather, IEA must aggressively keep approaching UN and other organizations and present proposals.

2. IEA must continue to support ergonomics in countries where it has been neglected. There are two reasons. The first is simply that we want to help. We can help these countries by expanding their knowledge of ergonomics through training and education. The second is that IEA wishes to recruit more members. In order to do so, one must first help in creating the necessary infrastructure and organization of ergonomists in the country.

An ergonomics association must be organized. During the period 1994-1997 IEA training activities increased: Courses were held in: Colombia (two courses), Hong Kong, Indonesia, Lithuania, Latvia, Malaysia (three courses), South Africa (five course), and Thailand (two course). Some of these were in corporation with ILO and WHO.

The IEA Committee for IDC's, chaired by Kamiel Vanwonterghem, was responsible for these activities. IEA can also stimulate ergonomics by supporting conferences in strategic locations, where ergonomics is underdeveloped. Today, there are only a few activities on the large continents of Africa and South America. Through the help of the Brazilian and the South African Ergonomics Societies, IEA has been able to stimulate interest in neighbor countries. Our book donation program has flourished. It is now organized as 10 library depositories in IDC's around the world.

The student chapter of HFES at SUNY Buffalo, NY took an initiative to collect books from HFES members. This was extremely successful, and we are very grateful for their initiative. To sustain this program, we need more donations of current textbooks and volumes of journals.

3. IEA must remain at the forefront of technological and scientific development. The Science and Technology Committee (Chair: Holger Luczak) carries the main responsibility. The committee organizes 16 Technical Groups, which arrange conferences, symposia and meetings of expert groups. New technical groups were proposed by federated societies and by interested individuals. Inactive technical groups were dissolved. During the time period 1994 - 1997 IEA sponsored 17 conferences around the world - about 6 per year. Many of these were held in IDC's. All of them were attended to by members of the IEA Council and the Executive. The Technical Groups helped in soliciting papers by organizing paper sessions for the IEA Congress in Tampere. About half of the papers were sponsored by Technical Groups.

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4. IEA must disseminate information about ergonomics on a global scale. The newsletter *Ergonomics International*, (edited by Stephan Konz), has been distributed quarterly as a section of the journal *Ergonomics* as well as via Internet. It is also mailed to about 250 individuals around the world. The Publication and Promotions Committee established the "IEA Press" with the main objective of making conference proceedings available at low cost. The IEA Journal of Ergonomics Research will appear as a refereed Web journal. It was established for a similar purpose as IEA Press: to make information available at low cost - particularly to IDC's.

5. IEA must facilitate global communication among professionals. 1994-1997 was the time when global communications exploded thorough the Internet. IEA was well prepared, and we established immediately effective e-mail communication among members of the Executive. For the future it would be desirable if all Council members would have an e-mail account. This would simplify communication around the world. An IEA Web page was established. IEA Federated Societies and Sustaining Members should link themselves to this page. By organizing all Federated Societies, the IEA Web page can become the most comprehensive Internet source of Ergonomics information. In the future IEA may try to organize an international register of E-mail addresses to ergonomics professionals. The first Web conference in ergonomics, the CybErg conference, was organized by Curtin University, Australia, and was a great success.

6. IEA must continue its leadership role in developing guidelines for educational accreditation and professional certification. Draft guidelines for certification of ergonomics professionals were developed by the Education and Training Commit-

tee (Chair: Margaret Bullock). The final guidelines were published in 1999. The guidelines will continue to evolve as the field of ergonomics changes.

7. IEA must increase its budget and seek new sources of funding. IEA relies on volunteer work, and for that reason it is possible to accomplish much at little cost. Current funding is provided by member societies, by donations, and by income from conferences. Our annual budget is insufficient. For the future we must seek additional sources of revenue, more substantial donations and trust funds from individuals, sustaining membership fees from international corporations, grants for research and development, profits from publications, and so forth. Lack of funding restricts IEA activities, and makes it difficult for IEA to sustain its international role. Ian Noy designed a Donors brochure

8. IEA Council members must be given opportunities to help with IEA business, for example by doing special projects . Some council members are already active on committees, but there are many opportunities for special projects of limited duration. I encourage Council members to bring up new initiatives where they would like to be involved. One very important activity is listed below in 9.

9. IEA must actively recruit new members. In particular, the number of Sustaining (company) Memberships must be increased. These validate IEA as important to industry and creates opportunities for international collaboration. The membership fees make a valuable contribution to IEA budget. This activity rests with the Policy and Development Committee (Chair: Ogden Brown Jr.) The IEA Fellowship was instituted.

10. IEA must promote an international debate on the goals of ergonomics. Ergonomics is practised differently in many parts of the world. To develop a common understanding, IEA must lead a global debate on the goals and means of ergonomics. Ergonomics must be explained or packaged, so that the message is easy to understand for non-professionals: The purpose of ergonomics is to design systems that enhance productivity, safety and user satisfaction (Helander, 1997). With a clear message, we can effectively promote ergonomics. References: Helander, M.G. (1997). Forty Years of IEA: Some Reflections on the Evolution of Ergonomics. *Ergonomics*, 40, 952-961. Helander, M.G. (1995). Extending the IEA Network. *Human Factors and Ergonomics Society Bulletin*, 38(3), 1-2. also in *Ergonomics*, 38, 1525-1527.

Y. Ian Noy (1997-2000)

In my candidacy speech at the Tampere Council meeting during the NES Congress in 1997, I indicated my desire for two important initiatives. These were based on insight of the IEA that I gained having served on the IEA Executive for the previous 14 years, first as Chair of Policy and Planning Committee (1983-1991) and then as Treasurer (1991-1997). The first was to create a strategic plan that would pave the way for enhancing the role of the IEA as the internationally-recognized authority on ergonomics.

With the new millennium approaching, the time was ripe for a fundamental re-examination of our goals, objectives and activities (beyond the triennial Congress) with a view to positioning the Association to be able to respond effectively to the changing needs of federated societies, the discipline and society as a whole. Additionally, the work of the Association was growing beyond our capacity and we needed to prioritize our goals. We also needed to think outside the box and explore new ways to achieve our objectives. The second major initiative was to involve the member societies more directly in the work of the IEA.

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We needed to find ways to involve societies more meaningfully in the various activities being organized on their behalf by the Executive.

In the course of my term as president a number of other opportunities and challenges arose, as they invariably do, and we pursued a variety of important initiatives aimed at promoting the discipline within the developed world and in industrially developing countries while at the same time modernizing the way we functioned. We also began to document the history of the IEA and establish our formal archives. It was a very busy time for the IEA.

I look back with satisfaction at the tremendous amount of work we achieved, largely through a shared sense of purpose and cooperation. The accomplishments of the IEA during my presidency that come most readily to mind are enumerated below.

- Developed definitions for the discipline of ergonomics and its domains of specialization. Concerned over growing ambiguity over what ergonomics and human factors was about, partly due to regional differences in focus and approach, I felt a compelling need to clarify the field and promote understanding and communication within the ergonomics community as well as with professionals and lay people outside the field. This was a highly controversial initiative that, because of divergent philosophical views marked by different linguistic preferences around the world, stimulated intense intellectual debate and demanded a great deal of effort and compromise to arrive at an international consensus. What was truly remark-

able and healthy from my perspective was the level of engagement by individuals and societies. The consensus building process, by creating dialogue and collaboration, was as important as the tangible product of our deliberations.

- Together with the IEA Council, we developed the first comprehensive strategic plan. This plan took about two years to develop and served as a template for the IEA in subsequent terms. I was especially pleased that the development of the strategic plan engaged the federated societies of the IEA in a participatory process. This approach resulted in a plan which truly reflected the range of interests and views of the ergonomics community.

- Introduced Council workshops to engage member societies in the work of the IEA and to facilitate international dialogue on the issues of the day. These workshops were instituted to supplement the business agenda of the annual Council meetings as a means to promote high-level discussions on topics of scientific or professional interest and to encourage members to interact more closely on matters of substance.

- Through an initiative of Liberty Mutual Insurance, created the coveted IEA-Liberty Mutual Prize and Medal in Occupational Safety and Ergonomics to recognize individuals whose research efforts contributed to the reduction or mitigation of work-related injuries.

- Produced the first comprehensive Triennial Report that showcased the IEA to outside stakeholders such as other organizations, the media, etc.

- Restructured subcommittees to align with IEA priorities

- Together with HFES, we planned what was to be the largest IEA Congress for many years to come, with a planned attendance of 3,000 participants. Special initiatives, such as the Presidents' Forum, were planned to encourage interaction among the various leaders of ergonomics societies. We also held strategic meetings with WHO, ILO and sister organizations such as ICOH to explore new collaborative opportunities.

- Reconstructed the web-site in conjunction with ErgoWeb to be more informative and user friendly

- Progressed efforts to create the Federation of European Ergonomics Societies (FEES) to influence the European Commission on matters related to ergonomics research and education

- Initiated plans for the establishment of an IEA office, although this was not fully implemented during my term of presidency. It appeared necessary to begin planning for permanent, albeit temporary, office and staff to handle the growing administrative burden and to provide the support and stability necessary for the effective functioning of the IEA.

It is also worth noting that we became concerned over lack of growth and a declining number of volunteers at the level of national societies. To be sure the number of member societies grew over this period, but the new societies were small and the total number of ergonomists represented by the IEA reached a plateau. The lack of active volunteers reflected increased work pressures on the part of individuals as well as changing priorities among employment, family and community service responsibilities. However, I was convinced that the main reason for the lack of growth of the ergonomics community affiliated with the IEA was the nearly complete lack of infrastructure devoted to training and education in ergonomics. Most ergonomics training was (and still is) embedded within diverse academic departments such as psychology, engineering, medicine, anthropology, kinesiology and others. There were and continue to be very few university departments or faculties that provided degrees in ergonomics as a unique discipline or profession. Consequently, even affiliated ergonomists considered themselves, first and foremost something else (i.e., psychologists or engineers, etc.) What was needed for the discipline to flourish were programs dedicated specifically to the science of ergonomics, and centres of scholarship in ergonomics. Alas, a project on which I did not manage to make much progress was aimed at influencing academic institutions to recognize the need and value of creating degree programs in ergonomics.

On a personal level, my presidency was perhaps the most rewarding experience of my life. I am grateful to the many people (on and off the Executive Committee) who inspired me with their passion and who supported me with their ideas. I cherish the memories, but more so I cherish their friendships.

Waldemar Karwowski (2000-2003)

At the beginning of my term, I have proposed four major goals for our association: 1) to bring a higher level of financial resources to IEA, 2) to develop a program aimed to enhance public understanding of the meaning of ergonomics quality in design of products, work systems and services, 3) to reduce 'ergonomics illiteracy' by facilitating development of educational programs in ergonomics, and 4) to rewrite the IEA Basic Documents in order to reflect the IEA structure and approved rules and policies that have significantly changed over the years. Working together with the Executive Committee and the Council we have:

- Launched the successful IEA Campaign for Development, and reinvigorated the IEA Sustaining Membership Program. Compared to the end of fiscal year 1999, 2003 total IEA assets have grown by 31.5%. This increase was due in part to the successful outcome of the IEA Sustaining Membership Program.
- Developed a framework for the IEA Ergonomics Quality in Design (EQUID) Certification Program
- Established the permanent IEA Archives in Paris, France by signing an Agreement with CNAM in 2001
- Organized the largest ergonomics meeting ever held in South America
- Developed a blueprint for long-term collaboration with WHO and ILO
- Completely restructured and updated the IEA Basic Documents

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Between 2000 and 2003, the federated membership in IEA has increased from 36 to 40 societies. We have also supported founding of the Federation of European Ergonomics Societies (FEES), confirmed by the Council at the 2003 Meeting, as the first IEA Network. FEES serves as a model for regional cooperation between various ergonomics societies under the common umbrella of IEA. In addition, we have opened communication with the following new societies in order to help them to join the IEA family in the near future: Ergonomics Society of Thailand, Egyptian Ergonomics Society of Fitness and Disability, Ergonomics Society of Venezuela, and Ergonomics Society of Argentina.

Responding to the increasing proliferation of the claims (often false) for ergonomically designed products, we have developed foundations for the IEA Ergonomics Quality in Design (EQUID) Certification Program. This new program aims to enhance the public understanding of the meaning of ergonomics, and should have a profound impact on the implementation of ergonomics principles in practice. The EQUID program also aims to help the public make informed decisions about the value of ergonomics in the design of products, work systems, and services.

Following our strategic objectives, on 2-3 September 2002 we organized the IEA Symposium on "Developing Ergonomics in a Developing World" in Santiago,

Chile. The logistical support for this Symposium was provided by the IEA Science, Technology and Practice Committee, chaired by Ken Laughery, with the financial and logistical support from the ACHS represented by Martin Fruns, the Chilean Ministry of Labour, Prevencion-integral.com of Spain and the Chilean Society of Ergonomics. This successful Symposium was the largest gathering on ergonomics in the history of South America, with over 700 participants from Chile, Guatemala, Venezuela, Argentina, Mexico, Cuba, Peru, Brazil, and Panama, as well as Africa, Europe and North America.

Through the work of the IEA Professional Standards and Education Committee, chaired by John Wilson (United Kingdom), we have developed an online Directory of Educational Programs in Human Factors/Ergonomics 2003. This Directory is now available on IEA website. We have also initiated efforts to develop a model of the core ergonomics curriculum for the Masters Degree in Ergonomics that would be helpful to those interested in launching new ergonomics programs in academia. In October 2001, the IEA Subcommittee on the Endorsement of Professional Certification Programs in Ergonomics (chaired by Hal Hendrick, Past IEA President) recommended and the Council approved the first IEA endorsement of the CPE/CHEP Professional Certification Program by the Board of Certification in Professional Ergonomics (BCPE, USA).

Through the work of the IEA Communication and Public Relations Committee, chaired by Mike Smith (USA) we have continued development of the IEA web site (www.iea.cc). Andy Marshal has done an excellent job as Editor of the IEA newsletter, Ergonomics International. Through such efforts we aimed to reduce the “ergonomics illiteracy” around the world. Thanks to the IEA Technical Committee on Ergonomics for Children and Educational Environments, in 2002 we have supported the first successful legislative act, “Ergonomics in Education,” adopted in the state of New Jersey, USA, which endorses the critical role of ergonomics in designing classrooms for children.

During 2000-2003 we entered into a higher level of collaboration with World Health Organization (WHO) and International Labor Organization (ILO). In 2001, we have also signed new cooperation agreement with the International Occupational Hygiene Association.

Through the work of the IEA Policy and Development Committee, chaired by Klaus Zink (Germany), we have developed an Action Plan, which translated our goals specified in the IEA Strategic Plan into specific activities of the IEA Executive and IEA Council. We have also undertaken a major effort, led by Secretary-General Pierre Falzon, to completely restructure, reorganize and develop an up-to-date IEA Basic Documents. Having evolved over the last thirty years, these documents

required major rewriting to remove inconsistencies, errors, repetition, and outdated material, in order to assure that they truly and accurately reflected the IEA Rules and Operating Procedures adopted by the Council in the past. The significance of this tedious task could not be overstated since the IEA Basic Documents serve as our constitution, which specifies and communicates to the outside world about who we are, and how we operate.

The work of IEA is accomplished by many individuals, members of the IEA Federated and Affiliated Societies who selflessly give their time and effort to various IEA activities.

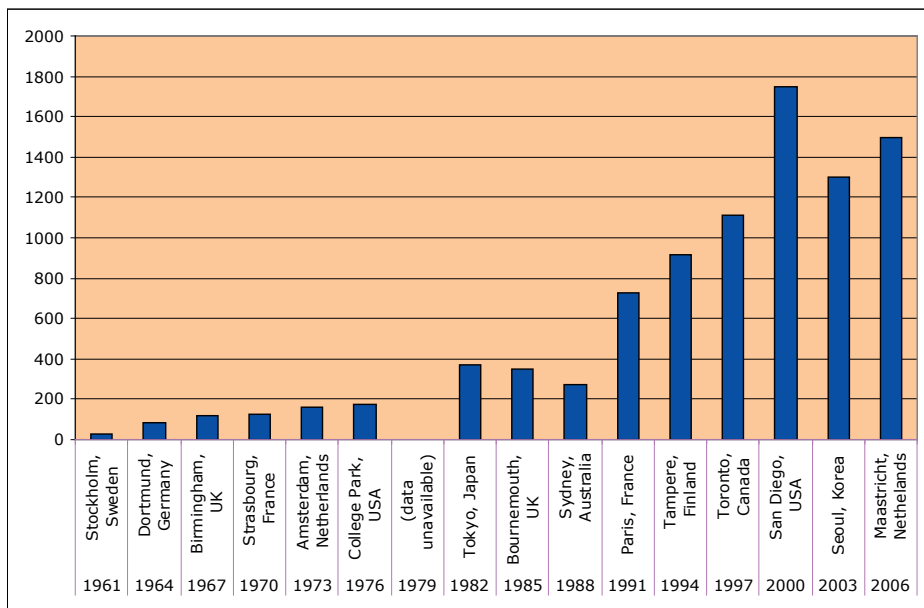
I would like to express my sincere appreciation to all these individuals for their contribution to ergonomics worldwide during my presidency. Thanks to these individuals ergonomics discipline plays an ever-increasing role in the global society, and IEA is able to promote ergonomics and advance its cause in industry, government, and the homes of millions of people worldwide. I would also like to thank the organizers of the many IEA-sponsored meetings who invited me to present opening remarks at their respective conferences. In some cases, regrettably, I was not able to participate due to heavy demands on my travel schedule. Sadly, during my presidency we have lost many valuable colleagues, including two outstanding individuals who served as IEA Presidents in the past. We remembered Dr. Al Chapanis (IEA President, 1976-1979) and Dr. Harry L. Davis (IEA President, 1979-1985) for their unique contributions to the IEA community, discipline and our profession.

I was very glad to see during my presidency an ample evidence of the growth of ergonomics discipline worldwide. When I was finishing my term, I was convinced that our profession is in the unique position to contribute to the improvement of living conditions in all parts of the world, regardless of their political or economic limitations. Such limitations are first and most the limitations of the people that ergonomics is focused on overcoming. I believe that as ergonomics becomes a science and practice that plays an ever-increasing role in our changing world, we will be in the very center of such changes at work and at home.

5.

The evolution of the number of communications and posters in IEA Congresses

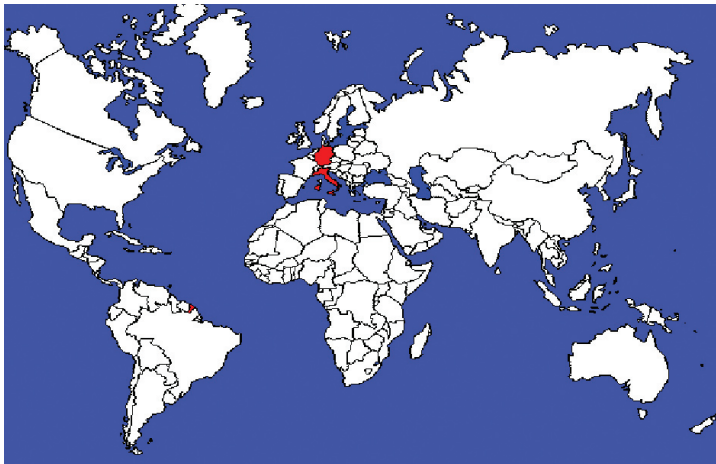
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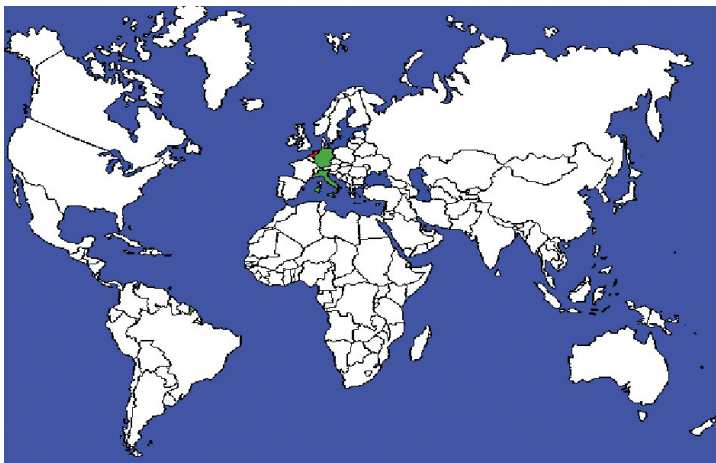
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IEA expansion in the word

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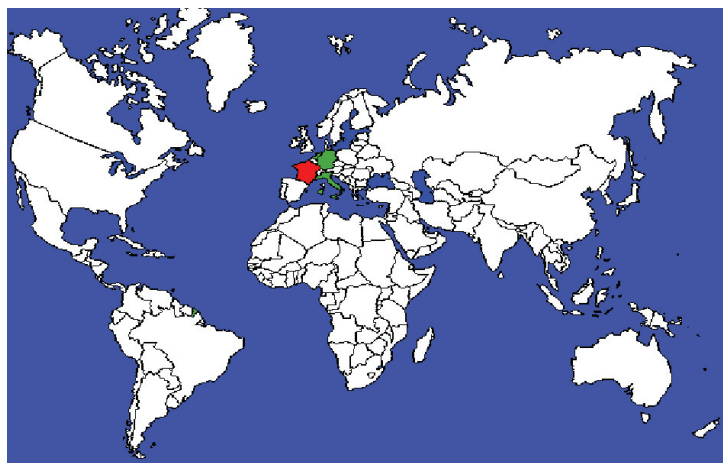


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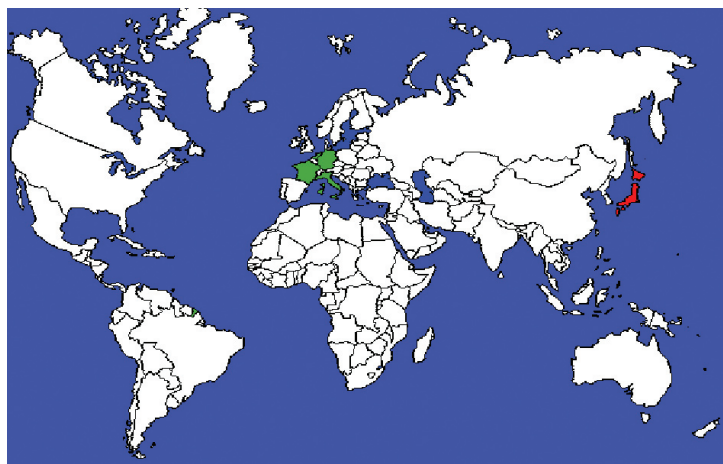
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- whole affiliation

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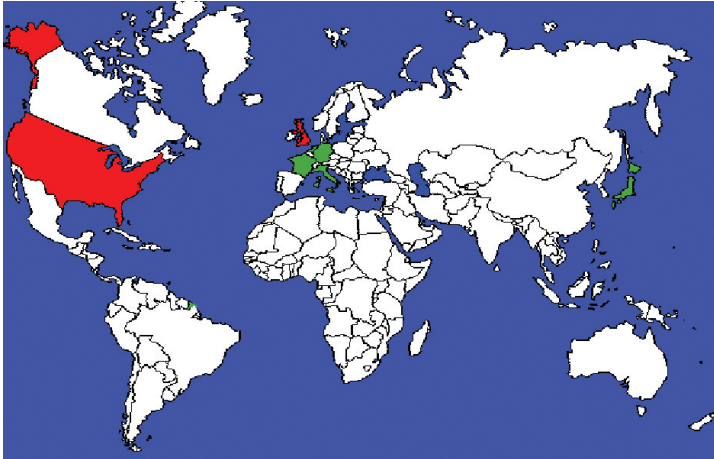


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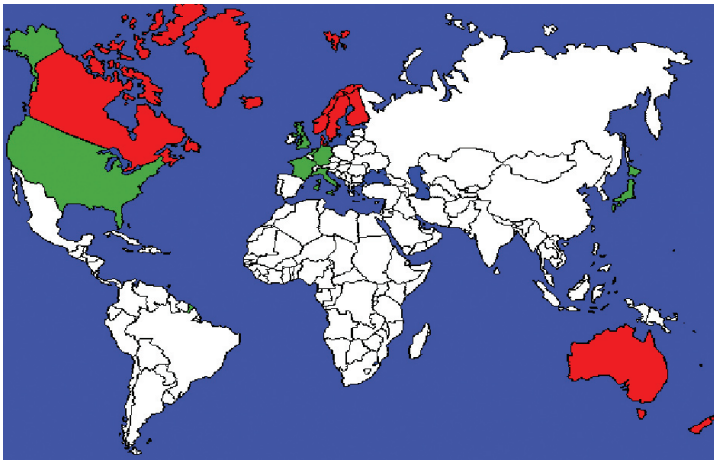


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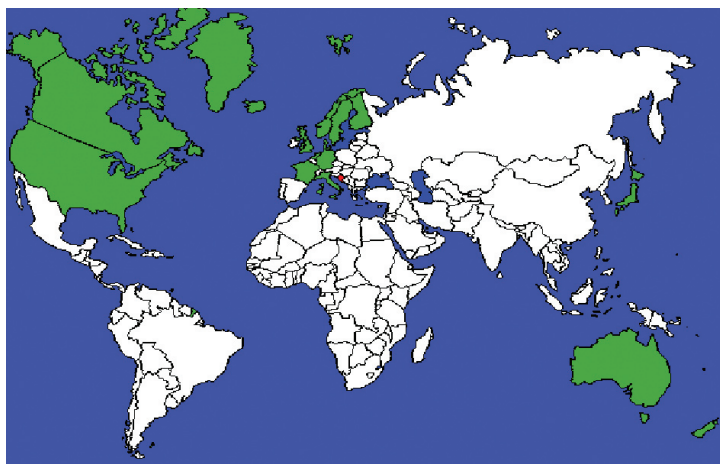
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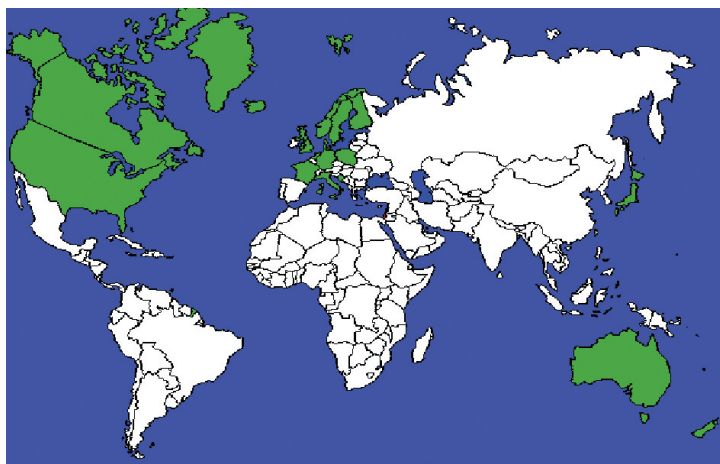
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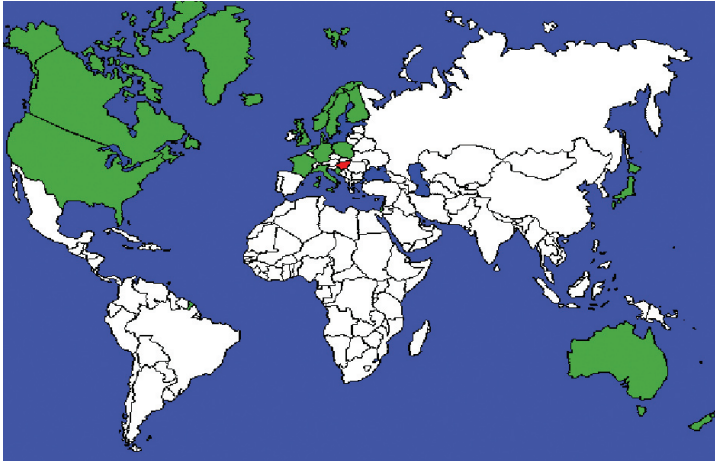


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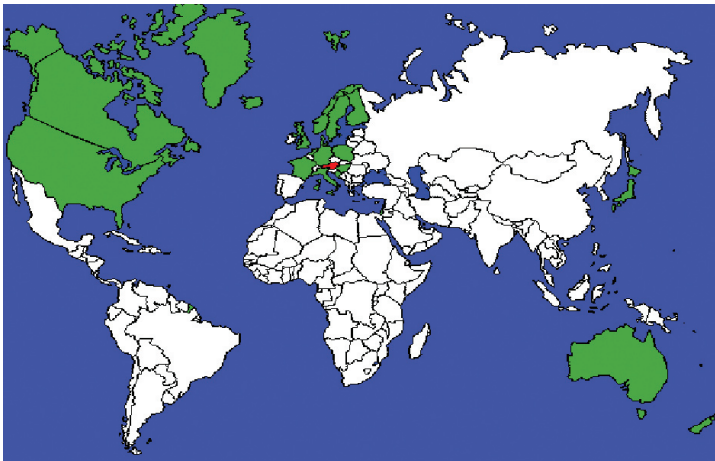


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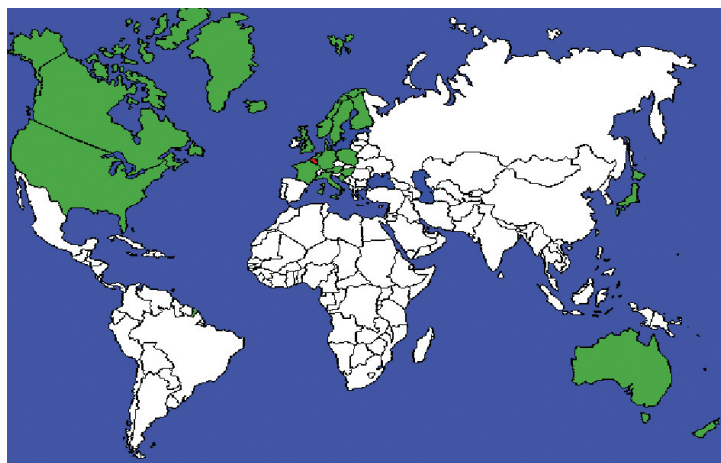
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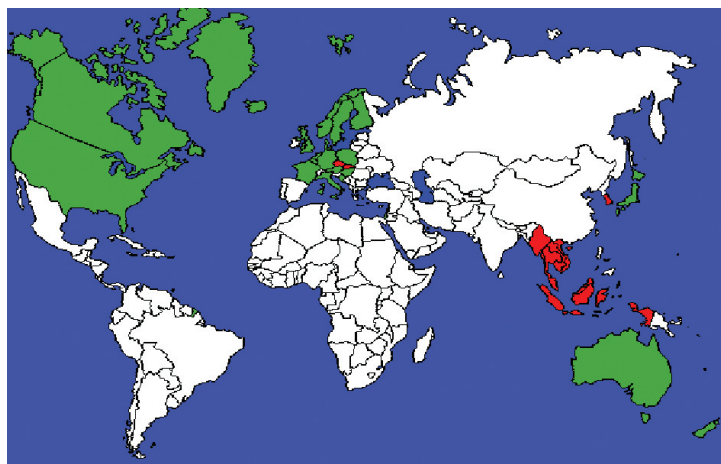
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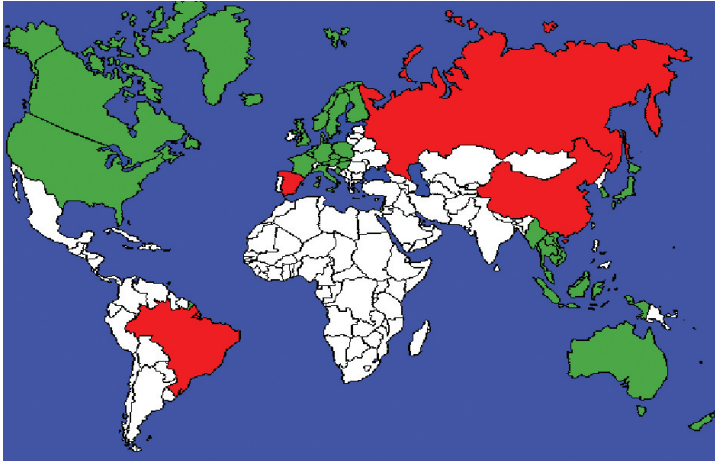


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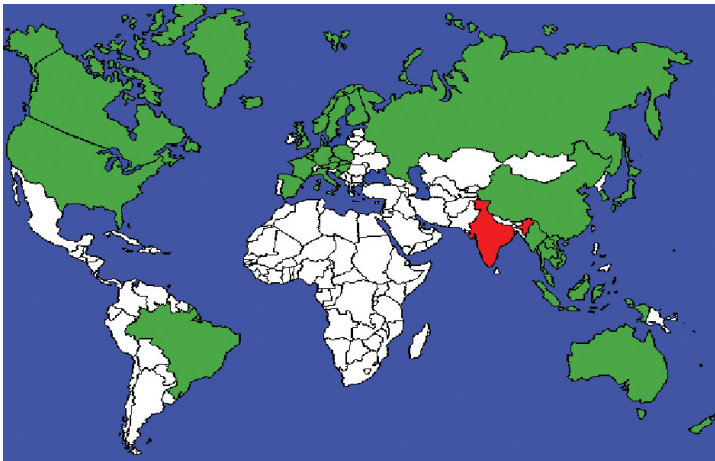


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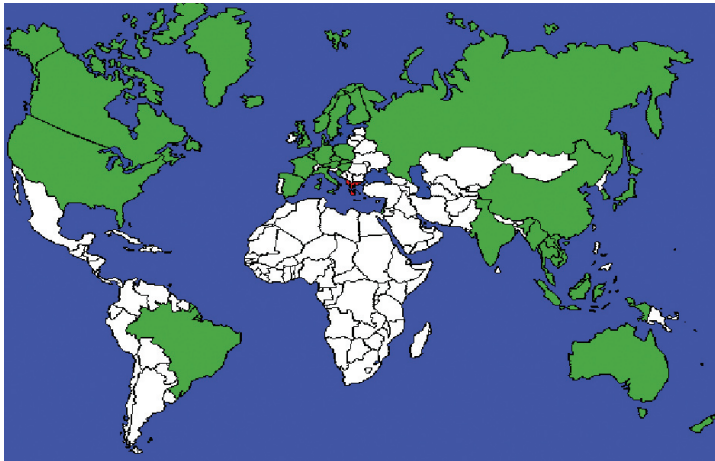
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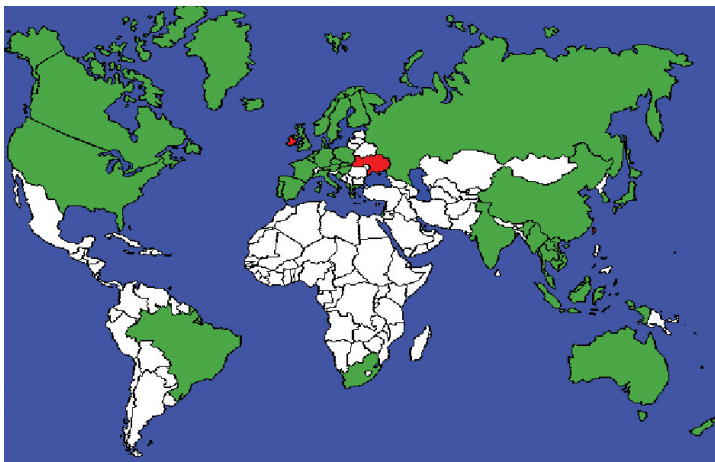


■ new affiliated society
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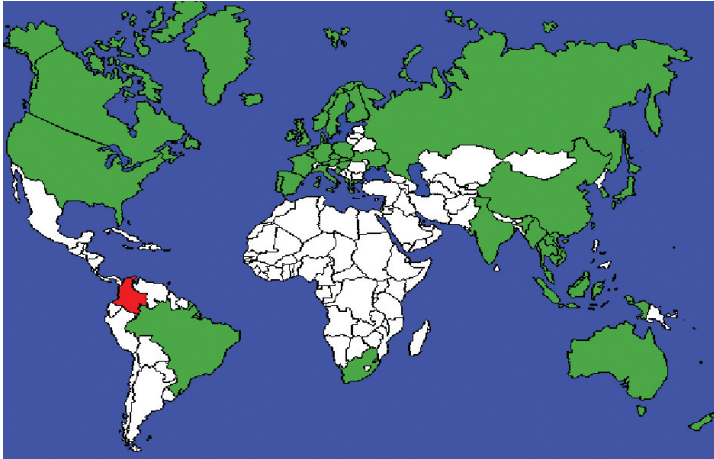
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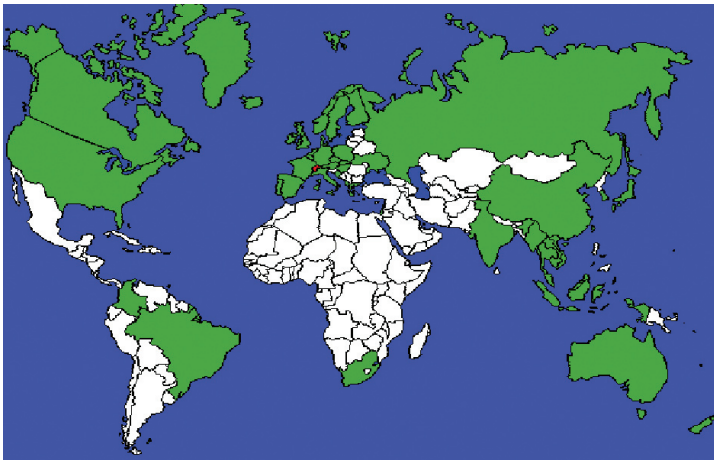


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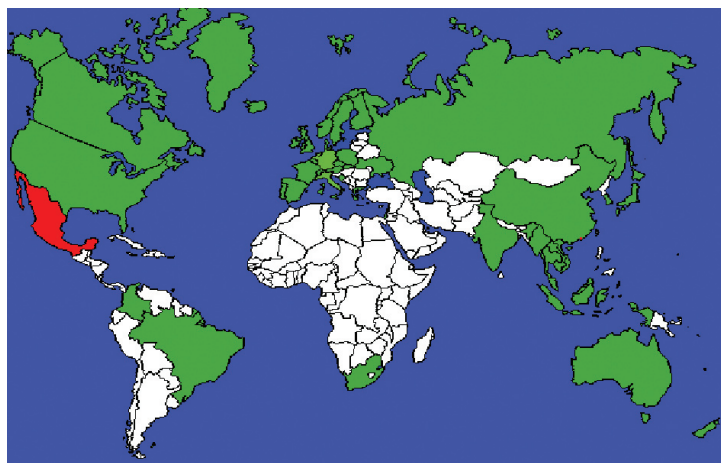
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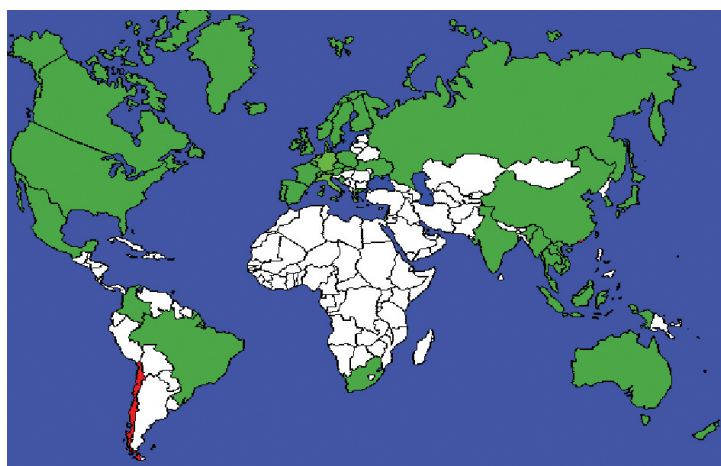
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IEA Membership 2001



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IEA Membership 2002





International Ergonomics Association

IEA 50th ANNIVERSARY

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