

**EUROPEAN  
MECHANICS  
SOCIETY**

# **THE EUROPEAN MECHANICS SOCIETY: From its Founding in 1964 to 2000**

*by H.H. Fernholz (Berlin)*

*With two appendices by L. van Wijngaarden and M. Okrouhlik*



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## Introduction

The Euromech Council (Meeting in 1994) asked G.K. Batchelor and H.H. Fernholz to write about the first thirty years of Euromech. Neither of the two proposed historians was a member of the Council at the time and had other duties to attend to so that nothing happened for fifteen years. Fortunately D.G. Crighton had organized a series of conversations with G.K. Batchelor and himself which were expertly documented by the Dutch science writer Fons Alkemade<sup>1</sup> and published in three EUROMECH Newsletters.

In this Aural History the two former Chairmen of the EUROMECH Committee (and later of the Council) G.K. Batchelor and D.G. Crighton, gave their views from memory. Both must have had extensive files about their periods of office but unfortunately nothing is accessible at the present time (both G.K. Batchelor and D.G. Crighton died in 2000). Some archival material did, however, survive. The Euromech papers of D. Küchemann (the co-founder with G.K. Batchelor and the first Secretary of the EUROMECH Committee until 1976) were sent from RAE Farnborough to Küchemann's successor as Secretary, H.H. Fernholz. These papers were absolutely essential for the documentation of the first ten years, since they contain important parts of the correspondence between D. Küchemann and G.K. Batchelor. Since there was a close co-operation between Chairmen (G.K. Batchelor and D.G. Crighton) and their Secretary (H.H. Fernholz) the documentation between 1975 and 1989 and that from 1998 to 2002, when Fernholz was President of the EUROMECH Council, is still with Fernholz and served as a further source of information for this report. Files collected by the two Secretaries General, B. Lundberg (1990-1997) and M. Okrouhlik (1998-2004) are available in the archive of CISM in Udine (Italy). The reader is also advised to read the Statutes of the EUROMECH Society, e.g. on the website of EUROMECH.

At the end of this short history there are two brief chapters, one by L. van Wijngaarden "Reflections of a EUROMECH old-timer" and a second one by M. Okrouhlik which contains photographs of some of the actors on the EUROMECH stage (mainly after 1988) and some earlier photographs from the writer's archive.

## Towards a European Cooperation in Mechanics

Euromech, or what is now the European Mechanics Society, had two founding members, Dietrich Küchemann and George Keith Batchelor, who took the first steps to establish the European Mechanics Committee. G.K. Batchelor was its Chairman from the beginning in 1964 to his voluntary retirement in 1987 and D. Küchemann its Secretary from 1964 to his early death in 1976.

G.K. Batchelor had come from Australia to Cambridge in 1945 to work with G.I. Taylor in turbulence and D. Küchemann from Göttingen to the Royal Aircraft Establishment in 1946 to continue his work in aerodynamics. Both became Fellows of the Royal Society in 1957 and 1963, respectively, and were members of the U.K. National Committee for Theoretical and Applied Mechanics where they probably met first.

G.K. Batchelor was born (1920) and educated in Melbourne, Australia, where he studied Physics and Mathematics. He laid the foundations for his many contacts to Europe, the USA and Eastern Europe by his scientific publications e. g. the book on Homogeneous Turbulence published in 1953, by founding the Journal of Fluid Mechanics in 1956, and largely under his impetus the Department of Applied Mathematics and Theoretical Physics in Cambridge. For many years he was a member of the Congress Committee of the International Union of Theoretical and Applied Mechanics with responsibility for major congresses between 1960 and 1972. This gave him an exceptionally broad view of international activities both in solid and fluid mechanics. He was elected to a number of foreign Academies of Science in recognition of his great distinction (Sweden 1972, Poland 1975, France 1984, USA 1994). He was particularly active during the long years of the cold war in maintaining scientific links with Soviet and Eastern Europe colleagues, often through the biennial meetings on fluid mechanics that were held in Poland throughout that period (H.K. Moffatt 2002)<sup>2</sup>.

D. Küchemann (see Owen & Maskell, 1980)<sup>3</sup> was born in Göttingen, Germany, in 1911 and educated at the universities of Göttingen and Munich, receiving his Dr. rer. nat. under the guidance of L. Prandtl at Göttingen in 1936. He then worked at the Aerodynamische Versuchsanstalt in Göttingen until 1946 when he moved to the Aerodynamics Department of the RAE at Farnborough.

2 This was partly achieved by the close links Peter Sutton (later in the Engineering Department of the

<sup>2</sup> Biographical Memoirs of Fellows of the Roy Soc. Vol. 48, 2002.

<sup>3</sup> Biographical Memoirs of Fellows of the Roy Soc. Vol. 26, 1980.

University of Cambridge) had formed with Küchemann during the debriefing of German aerodynamicists at Völkenrode in 1945 (personal communication of P. Sutton to the author).

Küchemann was Head of the Department from 1966 to 1971, and thereafter Chief Scientific Officer of Special Merit and Visiting Professor at Imperial College (London). He was much honoured in his later years - he held three honorary doctorates and fellowships and was awarded several medals. Küchemann occupied - with great modesty - a special position within the entire international community of aerodynamicists. He was a citizen of the world (Sir Morien Morgan, 1976) but he saw himself, and wished to remain, a European. "I live in the 20<sup>th</sup> Century, in Europe, and I think I belong to the species of European Man", he once wrote.

This "European Man" had properties which were ideal to start a scientific enterprise like EUROMECH: "Passion for communication, talent for stimulating and coordinating research combined with an incontrovertible soundness in his arguments, a freshness of concepts that were contained with consistent logic in a universal philosophical view", together with a personal modesty and human warmth (see footnote 3).

When these two men had reached the prime of their profession around 1960 what was the state of scientific communication or even cooperation between scientists in Europe? Language and national boundaries still impeded scientific communications within Europe but European scientists in theoretical and applied mechanics became more and more aware of the potential benefits that were available in current research in the different countries of Europe.

In the year 1955 restrictions on research in supersonic aerodynamics had been lifted in Germany by the three Allies and subsequently an Institute for Theoretical Gas Dynamics was founded by DVL (Deutsche Versuchsanstalt für Luftfahrt) in Aachen with K. Oswatitsch as its first director. Oswatitsch had studied Mathematics and Physics at Graz (Austria), had worked under Prandtl in Göttingen until 1945 and then at KTH in Stockholm from 1949 to 1956. Since both Küchemann and Oswatitsch worked in Gasdynamics it was natural for them to meet at the Symposium Transonicum in 1962 and here Oswatitsch remarked to Küchemann "that he would very much like to find a way to bring together more closely people working in fluid mechanics in Western Europe". The purpose would be to get together informally to discuss the work that is going on, and to establish better contacts.



Küchemann was attracted to this idea and wrote to his colleague on the UK Fluid Motion SubCommittee, B. Thwaites, for comments<sup>4</sup>. In October 1962 Oswatitsch<sup>5</sup> wrote a proposal for conferences on Fluid Mechanics in Western Europe. This résumé was translated into English and commented on by Küchemann in January 1963<sup>6</sup>. Replies to this résumé by M.J. Lighthill<sup>7</sup>, P.Germain (France) and B. Thwaites were very favourable, emphasizing the need for smaller conferences on specialized topics of fluid mechanics.

Batchelor (see Moffatt 2002<sup>8</sup>) attended the Fluid Dynamics Conference held in Zakopane, Poland, in 1963 - one of the first at which any Western scientists were present - and had preliminary discussions with two Polish scientists, W. Fiszdon and R. Herczynski, about the need for greater European cooperation in science.

In the beginning of April 1964 a note by H.W. Thompson of the Royal Society was published on “Research Conferences in Western Europe”, in which he summarized previous experiences with smaller conferences of the “Gordon type” and suggested the organisation of research conferences for chemists under the umbrella of the European Chemical Conference (EUCHEM) as an example. Regulations for these conferences, a possible course of action, and matters of finance were proposed and were largely transferred to the purposes of EUROMECH later in the same year.

Küchemann summarized in a letter to A.W. Quick (DVL Aachen<sup>9</sup>) the discussions in the British National Committee for Theoretical and Applied Mechanics, a committee of the Royal Society responsible for international relations. Here the idea of European Mechanics Colloquia was apparently first formulated as a conference for people working on specialized topics in Western Europe. This restriction to Western Europe avoided an involvement with IUTAM which was a strictly international organization. The proposition of European Mechanics Colloquia as a matter of European concern was fully endorsed by H. Görtler, the Secretary-General of the Bureau of IUTAM and former President of GAMM<sup>10</sup>. Görtler encouraged “the establishment of EUROMECH Colloquia in support of European mechanics between the giants USA and USSR. This would strengthen European self-confidence which despite our great tradition is rather faint-hearted.” This latter property was certainly not intrinsic to Küchemann who prepared a one page note<sup>11</sup> on the concept of European Mechanics Colloquia which was sent to 28 European scientists, among others to Görtler in preparation of a meeting of the XI<sup>th</sup> ICTAM Congress in August/ September 1964.

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<sup>4</sup> Letter from D. Küchemann to B. Thwaites (28.09.1962).

<sup>5</sup> Letter from Oswatitsch to D. Küchemann (30.10.1962).

<sup>6</sup> “Conferences on Fluid Mechanics in Western Europe” by K. Oswatitsch and comments by D. Küchemann (04.01.1963).

<sup>7</sup> Letter from M.J. Lighthill to K. Oswatitsch (12.03.1963).

<sup>8</sup> H.K. Moffatt, *Biographical Memoirs of Fellows of the Roy Soc.* Vol. 48, 2002.

<sup>9</sup> Letter from D. Küchemann to A.W. Quick (29.06.1964).

<sup>10</sup> Letter from H. Görtler to A.W. Quick (10.07.1964).

<sup>11</sup> Letter from D. Küchemann to H. Görtler (13.08.1964).

This note carried a motto handwritten by Küchemann<sup>12</sup>

Reading makes a full man;  
conference a ready man;  
and writing an exact man.

This initiative had by now also the support of the Royal Society which had authorized Batchelor and Küchemann<sup>13</sup> to arrange an informal meeting of representatives from various countries during the XIth ICTAM Congress in Munich with the aim of discussing the possibility of establishing a series of European Research Colloquia in the field of Applied Mechanics following the lines of EUCHEM. This meeting took place with the knowledge and interest of the Secretary-General of IUTAM and was attended by the Vice-President of IUTAM.

Twelve representatives from six countries met over lunch at Munich at the Künstlerhaus am Lehnbachplatz on 2<sup>nd</sup> September 1964. All were very favourable to the idea and an Interim Committee for European Mechanics Colloquia (EUROMECH) was established, comprising all those present at this first meeting, with Batchelor acting as Chairman and Küchemann as Secretary of the Committee. The participants discussed first the pros and cons of large international congresses and symposia, devoted to specialized subjects but with restricted participation, and then agreed on the need for EUROMECH Colloquia. The essentials are documented in the above memorandum (see footnote 13) and we quote the following passage:

“There seems to be a case for a less formal gathering, which we may conveniently term a Colloquium, on a level intermediate between those of the formal Symposium and the private visit. The subject matter to be discussed would either be more specialised than that generally chosen for a formal symposium, or at a less developed stage; the scope would be such that the participants, invited because they have something to contribute, can all be expected to follow the discussion fully. The Colloquium should restore the immediacy and directness of personal contact in lively and spontaneous debate on current work by people personally engaged on it, from which considerations of prestige are absent. The Colloquium should help to reduce the isolation of the working scientist which tends to result from the continual and rapid ramification of subjects, and it should lead him to notice aspects of his problem which he would otherwise have ignored. It is in the nature of scientific

<sup>12</sup> F. Bacon (1561-1626): *Of studies in the advancement of learning.*

<sup>13</sup> Memorandum on European Mechanics Colloquia – EUROMECH by G.K. Batchelor and D. Küchemann (07.12.1964).



work that such Colloquia should be organized on a partially international basis; but the region which supports them should be small enough to bring the meeting place within easy reach of every worker concerned. Europe is such a region (including all countries to the east as far as (and including) Poland and Romania repeated by Küchemann in “Notes for Chairmen of EUROMECH Colloquia” 1968 and by Batchelor in February 1970). Special reasons for trying to further the European contribution to the body of scientific knowledge by means of research colloquia lie in our scientific tradition, the present level of scientific activity in Europe, and the need to counter the isolating effects of language differences.”

With this general approach in mind, the discussion developed some rules which could be adopted for the colloquia. It was thought that the first step should be, however, to gain experience of such colloquia. The following tentative rules were suggested for the first few colloquia:

(i) The subject chosen should be advanced and ‘live’, and (normally) sufficiently specialised to interest a definite group of people. It may be of fundamental or practical interest, but should not be too technical.

(ii) There should be a maximum of about 50 participants; the number might often be considerably less. Participants should be invited for their known active interest in the subject and not as representatives of organisations. Young people whose names are not yet known internationally should be given particular consideration. Only under special circumstances should ‘observers’ be admitted.

(iii) The meetings should last 2 to 5 days, according to the volume of work to be discussed. Much time should be left for discussions, especially for informal discussion during breaks and for opportunities for participants to get to know each other personally. ‘Round-table’ seating may sometimes be better than a lecture theatre.

(iv) Papers presented at a colloquium should not normally be published as a part of any record of ‘proceedings’. In some cases, the organizer may wish to prepare a summarising report on the colloquium.

(v) A chairman should be appointed to organize each meeting with the help of a small committee of his own choosing. For the time being, the Interim Committee should choose the subject, the chairman, place and approximate date of each colloquium. Members of the Interim Committee should also help by suggesting the names of suitable participants to the chairman of a colloquium.

(vi) Colloquium committees should feel free to invite participants from any European country, east or west, although the USSR, being sufficiently large in itself to form a region suitable for colloquia, might be excluded.

(vii) For the time being, participants should be asked to obtain their travel and subsistence expenses from sources in their own countries.

It may be interesting to mention here the names of the members of the Interim Committee who were involved with the foundation of EUROMECH in 1964/65: G.K. Batchelor (Cambridge University), J.R. Besseling (Technische Hoogeschool, Delft), P. Carrière (ONERA, France), A. Craya (Université Grenoble), K. Gersten (Technische Hochschule Braunschweig), D. Küchemann (RAE Farnborough, U.K.), R. Legendre (ONERA, France), F.K.G. Odquist (KTH Stockholm), K. Oswatitsch (TU Wien), J. Smolderen (Von Kármán Institute, Belgium), E. Truckenbrodt (TU München), K. Wieghardt (Universität Hamburg), R. Wille (TU Berlin).

“Since it would be difficult to exchange opinions by correspondence in the time available, the Interim Committee took the liberty of making tentative arrangements for the holding of some EUROMECH Colloquia in the summer of 1965. A firm proposal for the first Colloquium was as follows:

EUROMECH 1: ‘The Coanda effect’: April 1965; to be held at Technische Universität Berlin; Chairman of the Local Organising Committee Professor R. Wille.

The topic of the first EUROMECH Colloquium had been among the suggestions approved as suitable by the Interim Committee. This Committee was well aware that it did not represent the whole field of mechanics and the whole region from which participants to the European Mechanics Colloquia should be drawn. It felt free to co-opt members from other countries which by chance were not represented at the meeting.



Wille and Küchemann co-operated extremely successfully in the preparation of EUROMECH 1 as is documented in a series of letters. Wille finally sent out a letter of invitation for contributors to the colloquium on January 29, with the date of EUROMECH 1 fixed for April 5 and 6, 1965. Küchemann wrote two important notes (February 1965), one for participants and another for future organisers of European Mechanics Colloquia, which were largely based on the memorandum of 1964 quoted above. These notes were also sent to the members of the Interim Committee for information, together with topics for three further EUROMECH Colloquia and suggestions for Chairmen of the Colloquia in 1965 and 1966<sup>14</sup>. Batchelor agreed with the activities initiated by Küchemann but regretted that he could not attend EUROMECH 1 since he would be away from Cambridge<sup>15</sup>. Küchemann's last letter to Wille before the Colloquium, written on Küchemann's typewriter at home in Farnham, is a masterpiece on the arrangement of the proposals for the Colloquium and "revolutionary" on the method of representation (round table contributions to specific subjects and not a full presentation of contributions).

EUROMECH 1 could not fail to be a success with Wille as Chairman and Küchemann in the background. It was a success, as can be seen from the subsequent report written under the guidance of the Secretary. It should have been an example of reports on further Colloquia since it contains many elements which the EUROMECH Council would even now like to read but too few Chairmen of Colloquia followed Küchemann's and Wille's pattern. For the benefit of future Colloquia the full text of the report on EUROMECH Colloquium 1 is given below (the scientific report was published in the Journal of Fluid Mechanics)<sup>16</sup>.

*The first in this new series of research conferences in Theoretical and Applied Mechanics was held at the Hermann-Föttinger Institut für Strömungsforschung of the Technische Universität Berlin on April 5 and 6, 1965, under the chairmanship of Professor R. Wille. The subject of the discussion was "Boundary Layers and Jets along highly curved Walls-Coanda-Effect". The following notes, prepared with the help of comments by participants, are mainly concerned with the organizational aspects of the meeting; a report on the discussion itself will be given in another note. There were 38 participants from 9 countries: Belgium (5), France (5),*

8 *Germany (15), Holland (1), Norway (1), Rumania (1), Sweden (1), Switzerland (1) and United Kingdom (8).*

<sup>14</sup> Letter from D. Küchemann to members of the Interim Committee (March 3, 1965).

<sup>15</sup> Letter from G.K. Batchelor to D. Küchemann (March 24, 1965).

<sup>16</sup> R. Wille & H. H. Fernholz, Report on the first European Mechanics Colloquium, on the Coanda effect, *J. Fluid Mech.* 23, 801-819 (1965).

*Thus some of the European countries were not represented. Colleagues from Hungary and Poland reported that no work on the Coanda effect is being carried out there, but no replies were received from Bulgaria, Italy, Spain and Yugoslavia. The aim of inviting all those working in the particular field under discussion to take part must have been very nearly achieved.*

*The experience of attending the colloquium and the most encouraging response and the positive comments and constructive criticisms of the participants showed the writer that a colloquium of this type answered a real need. There appears to be no doubt that the Euromech experiment of “workshop” meetings made an excellent start and deserves every support in its further development.*

*The subject chosen proved to be ideally suited for the purpose and the success of the meeting confirmed that the rules laid down for these colloquia are on the whole realistic. The subject was obviously “live” and also suitably restricted and definable. It became evident quite early on in the discussions that even such a restricted subject has many aspects and facets and that the individual worker finds it difficult to be aware of them all and to obtain a balanced view. Consequently, the participants particularly appreciated the opportunity to get acquainted with the whole spectrum of the work and to assess the present status of the subject and the scope of the various activities in Europe. The need was also felt for open and free discussions to enlighten investigators about the developments presently under way and about future projects, to stimulate the emergence of fresh ideas, and to put the individual contributions and activities into perspective. It seems particularly important to bring different individuals or research teams face-to-face at an early and formative stage of the work.*

*The meeting was held in the Senate room of the University, which allowed a close approximation to round-table seating. This, the full projection facilities and easy access to a large black-board, combined with the pleasant atmosphere, led to lively discussions. The number of participants was about right and the experience showed very clearly that this should definitely be limited to about 50 for this kind of working meeting. It was also confirmed that it is very important to invite mainly people known for their active interest in the subject and especially to encourage the participation of young people: the latter enlivened the discussions considerably and contributed in a most effective manner throughout.*

*The time-table included a morning session (9:00 to 13:00) and an afternoon session (14:30-17.30), with half-hour tea or coffee breaks in each. This proved quite workable. It appeared useful to group papers under appropriate headings and to provide a thread through the whole meeting. It was found that a good*



*survey paper at the beginning, which outlined existing knowledge under the same group headings, helped greatly in guiding the discussions. It was also very valuable to have the same chairman throughout the meeting, although this must have been quite a strain. The right climate of informal but incisive discussions was soon established.*

*22 of the participants made scheduled contributions, some of them several, so that there were altogether 29 items on the programme. In the event, the time available was rather short for all these, and the colloquium could well have been spread over 3 days. An extra day would have contributed towards a more relaxed atmosphere as well as to the clarification of a number of important points which were raised but not adequately discussed. However, the time of preparation was too short in the present case to add an extra day so as to accommodate the unexpectedly large number of contributions more comfortably, but it would seem desirable for future colloquia to discover well in advance how many contributions there are likely to be and so to provide for sufficient time.*

*The colloquium proved again that it is quite possible in many cases to present the relevant points of an argument lucidly in a short time as 15 minutes. But this requires careful preparation and it would seem advisable before future colloquia to exhort contributors not to read out the usual formal paper but to remember the special purpose of these meetings, the particular points under discussion, and the special audience they are addressing and to prepare themselves accordingly with the greatest care. Although it is in the nature of these colloquia that written papers or reprints will not, in general, be distributed to the participants, it may well be possible to bring along and to pass around the table copies of, say, figures giving the main results or other relevant information. This might be further encouraged.*

*The language difficulties were largely overcome simply by conducting most of the proceedings in English. It could not be ascertained, however, whether or not everybody was really able to follow the discussion fully and, at future meetings, people might be encouraged even more to interrupt when they are left in the dark and, if necessary, to ask for an on-the-spot translation.*

*Invaluable personal contacts and discussions were furthered immensely by the warm and most generous hospitality of Prof. Wille and his helpers. A meeting place had been arranged for the evening before the colloquium proper and another evening was spent in Prof. Wille's institute among well-prepared demonstrations of the interesting work carried out there and other apparently inexhaustible sources of invigorating refreshments.*

*together at future meetings.*

*It may be mentioned that the meeting was accompanied by a copious and free demonstration of sonic bangs. Finally, the desirability of requiring some funds for the Euromech colloquia became apparent. In the present case, Prof. Wille succeeded in organizing the meeting so that no extra costs arose for the participants.*

*But this may not always be possible and it would also seem desirable to be able to support some of the participants, especially young people.*

*It may justifiably be hoped that this first Euromech Colloquium at Berlin has initiated a series of working conferences which will benefit both the research scientist and the advancement of knowledge.*

24 May 1965

D. Küchemann

## The period 1966 to 1970

The Interim Committee for Euromech met again on 25 June 1966 in Vienna by invitation of G.K. Batchelor (Chairman) and D. Küchemann (Secretary). The Secretary addressed the following topics in the Notes<sup>17</sup> on this last meeting of the Interim Committee (25 July 1966):

(1) Lessons learned from the first colloquia. (2) Euromech Colloquia should be continued and be put on a permanent basis. (3) The informal character of these colloquia should be preserved so that no considerations of prestige attendance are likely to arise but participation is restricted to active workers in the field of the colloquium. (4) It was resolved that Euromech Colloquia be planned and supervised by an executive committee of four members who should normally serve for four years. The following were elected for the first term: G.K. Batchelor (Chairman), J.F. Besseling, R. Wille, D. Küchemann (Secretary). Finally it was resolved to publish announcements of the existence and aims of EUROMECH in appropriate journals as soon as the more permanent arrangements had been completed. This was achieved in July 1967 and documented in a publication on European Mechanics Colloquia in appropriate journals.

Bulletins were issued by the Secretary (October 1966, July 1967, January 1968, and May 1968) with information on Chairmen, dates and locations of colloquia and distributed to committee members and correspondents. This latter group of representatives from various countries was originally formed from the members of the Interim Committee. In a much later version of the Guidelines for EUROMECH Correspondents D.G. Crighton (1990) defined them as follows: “The “Euromech Correspondents” are people in the different countries of Europe who are willing to help with the important task of identifying suitable participants from their own country in forthcoming Euromech Colloquia. Active involvement in research on the topic of the Colloquium in question is the primary requirement for a participant; prestige and formal position are secondary. Euromech Correspondents do a great deal to make Euromech Colloquia effective and to maintain their distinctive character. Their real reward lies in the scientific success of the Colloquia, from which we all benefit.”

12 An informal discussion attended by some committee members and Euromech Correspondents was held at the occasion of the 12<sup>th</sup> International Congress for Applied Mechanics at Stanford/ USA

<sup>17</sup> Report by D. Küchemann on a visit to ONERA (Paris) and IUTAM meetings at Vienna, June 22-28, 1966.

in August 1968. The agenda for this meeting<sup>18</sup> set the pattern for many Euromech Committee meetings to come: A discussion of the reports on the colloquia already held, a discussion on topics and chairmen of future colloquia, financial matters and Notes for Chairmen of Colloquia.

There were two other items which should be mentioned. First, it was reconfirmed that Euromech should not be regarded as a sub-organization of IUTAM, and secondly, there was some discussion on the organization of the Committee for Euromech.

“It was agreed that Euromech could be regarded to be a going concern and the Committee of four people was regarded as being too small and as forcing too rigid an organization on us. So it was agreed that the EUROMECH Committee should be enlarged to six members and that G.K. Batchelor should carry on as Chairman for at least another year - Batchelor was reelected unanimously as Chairman every year until he refused to serve any longer in 1987 - the six members would each serve for about six years. It was also considered desirable to achieve a proper balance between representatives of fluid and solid mechanics on the Committee, and also to achieve, in due course, a proper representation of all countries involved. Quite generally, it was agreed it would be desirable to keep the organization of EUROMECH flexible so that colloquia can be organized with the minimum of effort. Efforts to organize future colloquia were worthwhile and future prospects were bright.”<sup>18</sup>

Notes for Chairmen of European Mechanics Colloquia were published in July 1968 by Küchemann to remind Chairmen of future EUROMECH Colloquia of the main purposes of these meetings and to suggest some rules on how to conduct them. As of 1st January 1969<sup>19</sup> two new members joined the committee: W. Fiszdon (Poland) and M. Landahl (Sweden), both working in fluid mechanics. In the same year R. Wille retired and was replaced by R. Legendre (France).

Between 1965 and 1968 eleven colloquia were held. For 1969 EUROMECH Colloquia 12 to 16 were announced. A committee meeting was held in Teddington<sup>20</sup>, UK, in July 1969 but there is no documentation available.

A new version of the Notes for Chairmen of Colloquia was distributed by Küchemann (January 1970), followed by a Bulletin (January 1970) with the announcement of Colloquia 17 to 22 in 1970. This was accompanied by a list of EUROMECH Correspondents.

<sup>18</sup> Notes on a meeting of Euromech Correspondents on August 26, 1968 at Stanford by D. Küchemann.

<sup>19</sup> MEuromech Bulletin January 1969.

<sup>20</sup> See Notes of EC. Meeting 1971.



In February 1970 Batchelor emphasized the aspect of European cooperation: “Experience with EUROMECH Colloquia and the Biennial Polish Fluid Dynamics Symposia had shown that steps to improve communications between scientists in eastern and western Europe are particularly welcome and valuable, since political differences tend to restrict casual personal contacts.” Such differences came to the attention of the EUROMECH Committee by restriction on travel and cooperation of East-European colleagues with West-European scientists. This is exemplified by a letter of a colleague from the former DDR to Küchemann (1966). He wrote: “Hardly any of our colleagues would be able to take part in EUROMECH Colloquia held in Western Germany or any other West-European Countries.” Until 1989 the EUROMECH Committee could not choose freely a DDR-scientist as a member of the EUROMECH Committee, and members not suggested by the EUROMECH Committee were not eligible.

Batchelor expressed his conviction about the need of cooperation between scientists in 1997<sup>21</sup>: “Though having common objectives and principles by which new knowledge is assessed and disseminated, scientists concerned with a particular field like fluid mechanics form an international community of great unity and moral strength. I believe that the understanding, trust, and goodwill between members of this scientific community transcend geographical and political boundaries and constitute one of the most important forces for international harmony and friendship in the world today.”

There was no Committee meeting in 1970 but there was a change in the composition of the Committee. M. Landahl retired from the EUROMECH Committee and was followed by H.H. Fernholz (Germany) with the obligation to assist the Secretary in his ever increasing administrative work. One major concern of the Committee was finances for the Colloquia: Although members of the EUROMECH Committee and participants of EUROMECH Colloquia were expected to find their own travel and subsistence expenses, some modest sums of money were given by the Royal Society and since 1965 by the Council for Cultural Cooperation of the Council of Europe for CCC Countries<sup>22</sup>. Between 1967 and 1975 annual grants were allotted to the EUROMECH Committee between 8.000 and 12.000 FF (French Francs) per year for all colloquia with the purpose to enable in particular young research workers from peripheral countries to attend “specialized research seminars” - EUROMECH Colloquia fell certainly under this CCC heading.

<sup>21</sup> Research as a life style, *Appl. Mech. Rev.* 50, R 11-20 (1997).

<sup>22</sup> Topic Finances in the Record of the Euromech Committee Meeting 1974.

There was no outside money to cover secretarial or administrative expenses of the Officers causing serious headaches, especially for the Secretary. A further cause of concern was subsistence money for scientists from East-European countries who wanted to attend colloquia. A bilateral scheme of balancing funds was hoped to be helpful but came to nothing and only an informal agreement between the Royal Society and the Polish Academy of Sciences was moderately successful<sup>23</sup>. Since each country in Europe had its own currency and its own currency regulations, money transfer was difficult and costly. Germany had the least problems in these respects and therefore the EUROMECH account was kept in Germany and administered by J. Zierp (TH Karlsruhe). Fortunately, money never caused a major problem for running the EUROMECH Committee and the colloquia.

### **Euromech Committee Meeting at Rapperswil (Switzerland) on April 6 and 7, 1971**

Five members of the EUROMECH Committee met in Rapperswil (G.K. Batchelor, H.H. Fernholz, W. Fiszdon, R.G. Legendre and D. Küchemann with F. Buckens absent). It was reported<sup>24</sup> that all Colloquia for 1970 had been held and that follow - up actions had been taken on several of these colloquia. Such actions were considered welcome and should be encouraged as an effective means of furthering research. It was noted that there was still too much emphasis on fluid mechanics and too little on solid mechanics and it was agreed that the number of colloquia with topics on solid mechanics should be increased. F. Buckens retired at the end of 1970 and H. Thomann (Switzerland) was invited to join the Committee. The Committee then discussed the proposal by G.K. Batchelor to form a European Mechanics Council<sup>25</sup> which should have representatives of all National Committees concerned with Theoretical and Applied Mechanics in Europe. It was considered to be important, however, that there should be no essential change in the mode of operation of the EUROMECH Colloquia. In the end nothing resulted from this proposal for reasons which are not documented and so we need not follow up this suggestion. Many years later the EUROMECH Committee changed itself into the European Mechanics Council and took over many of the duties Batchelor had envisaged as necessary earlier on.

### **Euromech Committee Meeting at Cambridge, on April 20 and 21, 1972**

At the Committee meeting there was a detailed discussion about the form and contents of the

<sup>23</sup> Report of G. K. Batchelor at the Euromech Committee Meeting 1979.

<sup>24</sup> Record of the Committee meeting, April 1971.

<sup>25</sup> Paper February 2, 1970 G.K. Batchelor.



1971 Colloquia (27, 30, 31, 33, 34, 36, 37 and 39 with an average of 46 participants). There were still shortcomings and deviations from what was expected in the Notes for Chairmen of EUROMECH Colloquia sent to every chairman of a colloquium, but on the whole the Committee was satisfied. There were a large number of proposals for Colloquia in 1973 so that some had to be postponed to 1974. The Committee agreed to Colloquia 32, 38 and 40-45. It was noted that the number of Colloquia with topics in solid mechanics had increased.

The list of participants at EUROMECH Colloquia indicated that participation at Colloquia was not as uniform as expected and that people from some countries attended only irregularly. It was suspected that in some countries, information about forthcoming Colloquia did not reach the right people. Therefore the dissemination of information about EUROMECH Colloquia had to be improved. This information had so far been sent to EUROMECH Correspondents and to editors of journals with a request for publication. The list of Correspondents was revised in that ineffective Correspondents were retired and new ones invited. A maximum of 8 (excluding Committee members) for each of the larger countries was thought to be appropriate (in August 1973 there were 44 Correspondents). This list of Correspondents had to be updated at each Committee meeting. It was found to be very useful in order to spread information about EUROMECH Colloquia if the Chairmen made proper use of it.

As far as the EUROMECH Committee was concerned it was resolved to give up the strict rotation of members of the Committee and the replacement of one member by a new one every year. Batchelor was asked to remain Chairman for a further 3 years and the Secretary (Küchemann) to carry on until the end of 1975. They both accepted. It was considered necessary to enlarge the membership of the Committee by people interested in solid mechanics.

### **Euromech Committee Meeting in Berlin, on April 6, 1973**

The meeting of the Euromech Committee was held in Berlin in April 1973<sup>26</sup>, accompanied by a plethora of sonic bangs produced by low flying Russian jets, a nuisance for the Berliners and a new experience for most of the Committee members.

**16** The Chairman stated his conviction that EUROMECH Colloquia were much appreciated and should

<sup>26</sup> Record of the Meeting of the Euromech Committee in Berlin in April 1973.

be continued and strengthened. They were here to stay and the end of the experimental stage had certainly been reached. Twelve Colloquia per annum seemed to be the upper limit for EUROMECH Colloquia both as far as organization and available time were concerned. To relieve the organization load H. Fernholz was appointed Associate Secretary to work in close cooperation with the Secretary. For the first time an announcement about the 1974 Colloquia (35, 46-55) was published in the Journal of Fluid Mechanics. A Bulletin containing the list of forthcoming Colloquia and other information was sent to Correspondents and to Chairmen concerned. It was left to their initiative how information was spread further.

In order to relieve Professor Zierep, H.H. Fernholz was asked to administer the EUROMECH financial matters in future. It was also suggested to increase the number of members of the Committee working in solid mechanics by two, S. Kaliszky (Hungary) and J. Carlsson (Sweden) as from January 1, 1974.

#### **Euromech Committee Meeting<sup>27</sup> in Warsaw, on March 29 and 30, 1974**

All eight members attended the Committee meeting. After the period of consolidation of Euromech Colloquia the foundations for long-term activities had to be established and extended rules and regulations had to be laid down which the mechanics community would accept although without giving up the informal methods which had helped Euromech so much in the past. For 1975 15 Colloquia were approved, considerably more than in previous years with 6 Colloquia in solids compared with 2 in 1974. Colloquia with joint chairmen from different countries were especially welcomed.

As of January 1, 1975 the duties of Secretary and Treasurer were separated and J. Carlsson (Sweden) was asked to be in charge of the finances. As far as the list of Correspondents was concerned, it was brought up-to-date and a better balance between Correspondents on the solid mechanics and the fluid mechanics side was achieved. The Committee agreed that at each annual meeting a Chairman, Secretary, and Treasurer would be appointed from among their members to hold office for the forthcoming calendar year. Members of the Committee would be eligible for reappointment as office bearers. The Committee unanimously appointed G.K. Batchelor as Chairman, H.H. Fernholz as Secretary, A.J. Carlsson as Treasurer for 1975 and D. Küchemann remained a member. It was decided to appoint two new members to join the Committee on January 1, 1975. The Committee held the opinion that it should consist ultimately of ten members, each appointed for a period of five years. If desirable, however a person could be reappointed as a member of the Committee for a further period.

## EUROMECH and its relationship with other Societies in Mechanics

The rising number and success of Euromech Colloquia had not gone unnoticed among European mechanicians. The three most important regional activities in Europe as seen by IUTAM were associated with the names GAMM, EUROMECH and the Polish Academy of Sciences (Solid Mechanics Conference and a Biennial Fluid Mechanics Conference attended by scientists from Eastern and Western Europe). In order to avoid confusion due to more and more national committees striving for regional participation in their meetings without any coordination, IUTAM established a Study Group on Regional Cooperation to investigate the need, scope, and organization of regional cooperation, such that the coordination of these regional activities with IUTAM was ensured.

A first meeting of the Study Group was held in August 1973<sup>28</sup>. W.T. Koiter was the Chairman (with further members G.K. Batchelor, E. Becker, D.C. Drucker, W. Fiszdon and L.I. Sedov) and reported to the General Assembly of IUTAM in 1974<sup>29</sup> that subject to the approval by the Board of GAMM and by the Euromech Committee henceforth GAMM will cooperate with EUROMECH in organizing small meetings of the EUROMECH type (meetings on a specialized topic in the field of mechanics, with 40 to 60 participants drawn from all parts of Europe). All proposals for such meetings originating in study groups of GAMM will be submitted to the Euromech Committee for consideration, and, if approved these meetings will be organized as Euromech Colloquia.

### Cooperation between GAMM and EUROMECH

In a letter to the Board of GAMM (27.9.74) E. Becker who had become the President of GAMM endorsed the proposals of IUTAM concerning the cooperation between GAMM and EUROMECH. The agreement between the two societies, drawn up by E. Becker and G.K. Batchelor at Udine in September 1974, was unanimously approved by the Euromech Committee at the Committee meeting in Paris in April 1975 and by the Governing Board of GAMM in December 1974.

W. Fiszdon agreed to act as the Euromech representative on the Governing Board of GAMM and as their representative on the Euromech Committee<sup>30</sup>. Fiszdon was a member of the Polish Academy of Sciences, a member of the Euromech Committee from 1969 to 1982 and a strong promoter of the Biennial Symposia on Advanced Problems and Methods in Fluid Dynamics. In these capacities

<sup>28</sup> Final Report on the first meeting of the IUTAM Study Group on Regional Cooperation (Delft, August 25, 1973).

<sup>29</sup> Summary record of the General Assembly of IUTAM in September 1974.

<sup>30</sup> Record of The Euromech Committee, London, 1976.

could advise his colleagues in the West with his insight into the Eastern mentality. This proved to be especially valuable for the negotiations between EUROMECH and IUTAM concerning an affiliation.

### **Affiliation of EUROMECH to IUTAM**

The Study Group on Regional Cooperation<sup>31</sup> considered the Statutes of IUTAM (article III A) as adequate to ensure the proper coordination of the activities of an affiliated regional organization with IUTAM. “Although it was not stated explicitly in the report, the Study Group hoped this interpretation of the Statutes would lead to the affiliation of the Euromech Committee to IUTAM<sup>32</sup>.”

The Chairman, G.K. Batchelor, thought “that this would help to give the Euromech Committee formal standing, and would possibly improve relations with IUTAM. It might also facilitate the cooperation of some countries with EUROMECH, as was pointed out by the East European Committee members. On the other hand the Committee valued highly its independence both from sponsors and scientific organizations and wanted to see it preserved. Further, the region with which EUROMECH was concerned, for convenience called “Europe”, forms a natural scientific community like some others natural regions of similar size such as the USSR and USA. The size and grouping “Europe” had proved successful in the past and should continue to be the area served by Euromech Colloquia”.

Accepting these assumptions the Euromech Committee was in favour of being affiliated to IUTAM. This application for affiliation together with a copy of EUROMECH’s Rules and other documents including a list of Euromech correspondents was received by the Bureau of IUTAM and most members were very well disposed towards it<sup>33</sup>. The USSR National Committee, however, continued to have reservations about EUROMECH Rule 2 stating “that the benefits were intended primarily for the ‘small and medium-sized countries in Europe’: a form of words that seemed to be designed exclusively for the purposes of excluding European Russia. It was difficult not to imagine hidden political motivations behind this although of course any such would make a connection with IUTAM out of the question.

There was also the objection that no Euromech correspondent was resident in European Russia and if invitations to individual Russians to attend meetings were made without advice from inside the USSR then there could be a serious failure to secure the attendance of the best specialists on individual topics. So the issue of affiliation to IUTAM was postponed to the next meeting of the

<sup>31</sup> Final report, Delft, August 25, 1973.

<sup>32</sup> Note from G.K. Batchelor to the Euromech Committee, 26.02.1974.

<sup>33</sup> Report by Sir J. Lighthill on a meeting of the Bureau of IUTAM in Marseille, 1975.



Bureau of IUTAM. This passage reads differently in the official Summary Record of IUTAM (1975): “The Bureau discussed the application of the Euromech Committee for affiliation carefully but did not reach a decision for a recommendation to the General Assembly in 1976.”

The Euromech Committee discussed this state of affairs at its meeting in London in April 1976 and decided to ask the Secretary-General of IUTAM to take no further action on the application until further notification.

In July 1976 the Euromech Committee was informed informally how the National Committee for Theoretical and Applied Mechanics in USSR dealt with invitations of their members to Euromech Colloquia. One of its members held the opinion that EUROMECH had an unfriendly attitude to the USSR and Russians should not take part in these meetings. So, it seemed that on the Bureau of IUTAM L. Sedov alleged that Russians are not invited to take part in Euromech Colloquia, and in Moscow he prevented Russians from taking part on the grounds that Euromech Colloquia should be penalized for their unfriendliness to the Soviet Union.

There were good reasons for Batchelor to assume that the Bureau of IUTAM had been “taken for a ride”. In this Batchelor was probably correct since a conversation between the Secretary of the USSR National Committee for Theoretical and Applied Mechanics Mikhailov and himself at the ICTAM Congress at Delft seems to have lowered the previously existing “obstacles” for affiliation<sup>34</sup>. Rules 1 and 2 of the Euromech Rules of Procedure were changed slightly and two Russian scientists were invited to act as Euromech Correspondents<sup>35</sup>.

The General Assembly of IUTAM agreed to the affiliation of the European Mechanics Committee in September 1978 and the Bureau of IUTAM appointed E. Becker as representative of IUTAM to the Euromech Committee for four years. L. van Wijngaarden was appointed by the Euromech Committee as the representative of EUROMECH at the General Assembly of IUTAM with a two-year term of office<sup>36</sup>.

The years between 1975 and 1985 may be called the years of consolidation. We return here to a year to year narrative of the most important events documented in the Records of the annual Euromech Committee Meetings. These records follow a relatively uniform pattern:

<sup>34</sup> Letter from G.K. Batchelor to H.H. Fernholz, 22.10.1976

<sup>35</sup> Record of the Committee meeting in Budapest, April 1977.

<sup>36</sup> Record of the Euromech Committee meeting in Bratislava, April 1979.

A discussion of the Colloquia reports of the previous year, a discussion of the proposed topics and contents and as a result finally the selection of the Colloquia for the coming year, the revision of the list of Correspondents; the dissemination of information about Euromech Colloquia (title, date, place and chairman); financial means for Colloquia; selection of new members of the Euromech Committee; appointment of Chairman, Secretary and Treasurer, relations with other societies and a discussion of new developments to improve Euromech activities.

### **Euromech Committee Meeting in Paris/ Orsay, on April 4 and 5, 1975**

33 Colloquia were suggested for 1976 or later and the Committee approved 15 for 1976 (8 dealt with topics in fluid mechanics and 7 with topics in solid mechanics). In order to avoid too many Colloquia on numerical methods the Committee decided to accept one appropriate title each year with application to solid mechanics and fluid mechanics in alternate years.

R. Legendre expressed the wish to retire from the Committee. He had already been a member of the Interim Committee in Munich in 1964. H.H. Fernholz was reappointed for a period of five years and G. Capriz (Italy) was invited to join the Committee. Chairman (G.K. Batchelor), Secretary (H.H. Fernholz) and Treasurer (J. Carlsson) were unanimously appointed for 1976. The Committee agreed that henceforth it should be known as the European Mechanics Committee (abbreviated as EURO-MECH Committee). The agreement between EUROMECH and GAMM was confirmed.

Batchelor stated that the meeting in Paris was good but hard work. Regrettably the Committee was deprived of half of an excellent French lunch for reasons of time.

### **Euromech Committee Meeting in London, on April 9 and 10, 1976**

The Secretary D. Küchemann had died on February 23 and members were informed that the Chairman had expressed the Committee's sympathy with Mrs. Küchemann on the sudden death of our past Secretary. More than any other single person Dietrich Küchemann had been responsible for EUROMECH, as a founding member of the Euromech Colloquia and as the Committee's first Secretary. His clarity of vision had started EUROMECH in 1964, making the right move at the right time, and his wide connections all over Europe combined with wisdom, perseverance and organizing talent had launched EUROMECH on the right path.



26 proposals for Colloquia in 1977 had been suggested and 15 were approved (9 on topics in fluids, 4 in solids and 2 classified as “other”). The Committee invited L. van Wijngaarden (The Netherlands) and M. Save (Belgium) to serve on the Committee for five years. The Officers of the Euromech Committee were unanimously reappointed.

A further and extensive discussion was held on the application for affiliation of the Euromech Committee with IUTAM on the basis of a letter of G.K. Batchelor to all Committee members (5 April 1976). This led to a rewording in one or two places in the “Notes for Chairmen” to avoid any possible suggestion of discrimination, that Rule 2 might be reworded at a later meeting and that the Secretary-General of IUTAM be asked to take no further action on the application for affiliation until further notification by the Committee.

W. Fiszdon was proposed by GAMM and by EUROMECH to act as their official representative on the Governing Council of GAMM and the Euromech Committee, respectively.

#### **Euromech Committee Meeting in Budapest, on April 15 and 16, 1977**

The Council of Europe had decided to discontinue their grants for research seminars in 1977 which would make the financial support of Euromech Colloquia very difficult. 20 proposals for Euromech Colloquia were suggested for 1978, 13 of which were approved (7 on fluid mechanics and 6 on solid mechanics). The list of Correspondents was discussed and a survey among Chairmen of Colloquia was suggested about the efficiency of the system of Correspondents. The result of this survey was by no means conclusive (Record of the 1978 Committee Meeting). The period of membership of G.K. Batchelor and W. Fiszdon was unanimously extended by a further five years and E. Becker (Darmstadt) was invited to be a co-opted member for the year 1978. As far as the affiliation to IUTAM was concerned no further approach to IUTAM should be made before April 1978.

#### **Euromech Committee Meeting in Pisa, on April 7 and 8, 1978**

M. Save retired for personal reasons and so did J. Carlsson as Treasurer of the Euromech Committee. Henceforth the Secretary will maintain the records of the balancing grants. The Committee approved 14

new colloquia for 1979 (8 on fluid mechanics and 6 on solid mechanics). E. Becker was elected for a three years period from 1 January 1979 and V. Brcic (Belgrade) and B. Storakers (Stockholm) for five years. The Committee unanimously appointed G.K. Batchelor as Chairman and H.H. Fernholz as Secretary for 1979.

### **Euromech Committee Meeting in Bratislava, on April 6 and 7, 1979**

The Committee approved 13 new Colloquia out of 25 proposals for 1980 (7 on fluid mechanics and 6 on solid mechanics). The list of Colloquia was disseminated to 18 scientific journals and to the Secretary of the National Committee for Theoretical and Applied Mechanics in each country of Europe. The General Assembly of IUTAM had approved the affiliation of EUROMECH in September 1978 and E. Becker was appointed representative of IUTAM to the Euromech Committee for four years from January 1, 1979. The Committee appointed L. van Wijngaarden as the representative of Euromech at the General Assembly of IUTAM with a two year term of office. The Committee unanimously agreed to invite N. Cristescu (Bucharest) and A. Lagarde (Poitiers) to serve on the Committee for five years from January 1, 1980 and F. Engelund (Lyngby) to serve for two years. G.K. Batchelor as Chairman and H.H. Fernholz as Secretary for 1980 were unanimously reappointed.

### **Euromech Committee Meeting in Darmstadt, on March 21 and 22, 1980**

The Committee noted that the number of scientists from Eastern European countries at Euromech Colloquia was small and the lack of Euromech Correspondents in DDR was regretted. 14 out of 24 proposals for Euromech Colloquia in 1981 were approved (8 on topics in fluid mechanics and 6 on solid mechanics). G. Maier (Milan) was invited to serve on the Euromech Committee for 5 years as of 1981 and H.H. Fernholz to serve for a further five-year period from 1 January 1981. H.H. Fernholz and G.K. Batchelor were reappointed as Secretary and Chairman, respectively, for 1981.

### **Euromech Committee Meeting in Enschede, on April 10 and 11, 1981**

The Committee discussed the Eastern European participation in Western Europe Colloquia during 1975-1980. There is a clear need for an increase in the number of participants from Bulgaria, DDR and Romania. Due to the political situation in Poland Euromech Colloquia had to be cancelled or



were postponed to a later year. Out of the 23 proposals for 1982 or later the Committee approved 14 Colloquia to be held in 1982 (8 on topics in fluid mechanics and 6 in solid mechanics).

The list of Correspondents was revised as every year.

L. van Wijngaarden was appointed as a member of the Committee for a further period of 5 years from 1 January 1982 and F. Engelund co-opted for 1982. G. Schmidt (DDR) was invited to accept membership for a period of five years.

Chairman and Secretary were unanimously reappointed for 1982.

### **Euromech Committee Meeting in Bucharest, on April 23 and 24, 1982**

Since our Romanian member, N. Cristescu, had been prevented from taking part at Committee meetings in Western Europe, the Committee met in Bucharest.

There were complaints by the attendants of the 1981 colloquia that there were too many lectures in the native language so that the language problem was often not overcome. It is hard to imagine that such a problem might occur in 2010. Some problems luckily do sort themselves out with time.

P. Perzyna (Poland) was invited to serve as a member of the Committee for a period of five years from 1 January 1983 and G.K. Batchelor for four years on the understanding that he should feel free to resign before the end of that term if he wishes. F. Engelund was co-opted for a further year. E. Becker was reappointed as the IUTAM representative (this time as a non-voting observer) on the Committee and G. Maier wished to resign from the Committee due to other professional commitments. In his place it was suggested by the Chairman to invite C. Cercignani (Milan).

The Committee unanimously reappointed G.K. Batchelor as Chairman and H.H. Fernholz as Secretary for 1983.

### **Euromech Committee Meeting in Poitiers, on April 8 and 9, 1983**

N. Cristescu had again been unable to obtain permission to leave Romania. There were 28 proposals for Colloquia from which the Committee approved 15 (9 on topics in fluid mechanics and 6 in solid mechanics). The list of Correspondents was revised as usual but again the relevant authorities in DDR did not reply to a possible choice of Correspondents. L. van Wijngaarden was

a third two-year term from 1 January 1983. B. Lundberg (Sweden) and D.G. Crighton were invited to serve as members for a period of five years from 1 January 1984. J. Kratochvil (Czechoslovakia) had to decline the offer for membership and S. Kaliszky (Hungary) was appointed for two years. The Committee co-opted F. Engelund for another year. G.K. Batchelor and H.H. Fernholz were unanimously reappointed as Chairman and Secretary, respectively, for 1984. The Committee agreed that it was potentially willing to provide the organizational framework of a proposed series of European Conferences on Turbulence and to set up a Management Committee (later the European Turbulence Conference Committee) which would report to the Euromech Committee if that was the wish of the turbulence community.

#### **Euromech Committee Meeting in Berlin, on February 24 and 25, 1984**

25 proposals for Colloquia had to be evaluated and finally 15 topics were approved for Colloquia to be held in 1985. It was decided that the European Turbulence Conference, discussed at the previous meeting of the Euromech Committee, should embrace all aspects of the subject. A Euromech Turbulence Sub-Committee should be set up to plan and supervise the organization of the Conference. G.K. Batchelor, H.H. Fernholz und J.C.R. Hunt (Cambridge) were asked to propose the membership and terms of reference of the Sub-Committee and to seek the Euromech Committee's approval of these proposals by letter. It was agreed to invite J. Salencon (France) and M. Sayir (Switzerland) to serve as members of the Euromech Committee for a period of five years from 1st January 1985. The Committee unanimously agreed to reappoint G.K. Batchelor as Chairman and H.H. Fernholz as Secretary for 1985.

#### **Euromech Committee Meeting in Milano, on April 19 and 20, 1985**

The Chairman expressed the Committee's sorrow at the death of their old colleague E. Becker in November 1984. He described Becker's long service to the Committee and valued his friendship, wisdom and valuable contributions at many meetings. The Committee considered 22 proposals and approved 14 Colloquia to be held in 1986. The list of Euromech Correspondents was revised. L. van Wijngaarden was appointed as the IUTAM observer on the Euromech Committee by the Bureau of IUTAM for four years. The Euromech Committee appointed H.H. Fernholz and R. Moreau for



a period of five years from 1 January 1986. The Committee unanimously agreed to appoint G.K. Batchelor as Chairman and H.H. Fernholz as Secretary for 1986. In accepting appointments both these members drew attention to the need to find new office-bearers during the next few years.

### **The EUROMECH EUROPEAN TURBULENCE CONFERENCE (ETC)**

At the meeting of the European Mechanics Committee (EMC) in 1983 the Secretary and the Chairman of Euromech reported a suggestion that the Euromech Committee may be prepared to provide the organizational framework of a set series of European Conferences on Turbulence. It was agreed that the Committee was potentially willing to undertake such an activity and to set up a Management Committee which would report to the Euromech Committee provided that was the wish of the turbulence community.

This would be the first meeting of a larger size than a Euromech Colloquium organized by EURO-MECH and it had originated from discussions between E. Krause and H.H. Fernholz.

At the EMC meeting in 1984 the Committee agreed to take responsibility for the organization of a European Turbulence Conference (ETC) at which the main strands of research on turbulence would be brought together and discussed in fundamental terms. The first conference should be held in 1986 and, if successful, might be the first in a series of such conferences. Later conferences might have a special theme, but it was thought that the first should embrace all aspects of the subject, as well as all the different approaches and techniques of investigation<sup>37</sup>. It was decided that a Euromech Turbulence Sub-Committee should be set up to plan and supervise the organization of the Conference and in 1985 the Euromech Committee approved the proposal by the Sub-Committee to hold the first ETC in Lyon, France, in July 1986 with J. Mathieu and G. Comte-Bellot to chair the Local Organizing Committee.

Some details concerning the organization of ETC may be of interest here: For the conference in Lyon, there were six general one hour lectures, 19 papers were accepted for oral presentation (30 min) and 52 for poster presentation, about 36 proposals were rejected. The main reason for

<sup>37</sup> Letter of G.K. Batchelor to H.H. Fernholz July 10, 1984 and Report on the Lyon Conference in July 1986 to the European Mechanics Committee (30th July 1986).

consideration at the conference or that they were not sufficiently new in approach. There was to be absolutely no implied distinction in merit between a poster and an oral presentation. It was decided to have plenary discussions of the posters in the main lecture theatre following a period of inspection of posters. By having such poster sessions any parallel sessions could be avoided. There were 165 participants from 15 European countries and four countries outside Europe.

The conference succeeded in connecting research of the most fundamental level, for example on dynamical systems and interaction of shear waves, vorticity dynamics, developments in experimental techniques and practical methods of controlling turbulence.

The first ETC Committee was set up by the European Mechanics Committee and consisted of the following members:

G. Comte-Bellot (France), H. H. Fernholz (Germany), H. Frisch (France), J. C. R. Hunt, Chairman (UK), E. Krause (Germany), M. Landahl (Sweden), J. Mathieu (France), H. Tennekes (The Netherlands), A.M. Yaglom (USSR). One of the aims of the Euromech ETC has been to bring together engineers, physicists and applied mathematicians in order to span a broader range of research activity in turbulence and to include a didactic or review element in their programme. This aim has been fulfilled successfully and so far eleven European Turbulence Conferences have been held in 10 different countries in Europe at intervals of two years.

### **Euromech Committee Meeting in Lulea (Sweden), on May 16 and 17, 1986**

A total of 17 proposals was discussed and 13 Colloquia approved. The Committee noted the need to stimulate good proposals for Colloquia in Eastern Europe. The Committee agreed to invite G.K. Batchelor and W. Schiehlen to serve as members of the Committee for a period of five years from 1 January 1987 and to co-opt again S. Kaliszky (Budapest) and Y. Engelbrecht (Tallin) for 1987. G.K. Batchelor and H.H. Fernholz were reappointed as Chairman and Secretary respectively.

### **Euromech Committee Meeting in Cambridge, on May 8 and 9, 1987**

There were 21 proposals of Colloquia for 1988 and 1989 for consideration and 14 were selected by the Committee for 1988. Publicity for Euromech Colloquia and a revision of the list for Euromech Correspondents was discussed as every year. The first European Turbulence Conference



had been successful and fulfilled the expectations of the chairmen and the Committee (note the Introductory Lecture by G.K. Batchelor and his extensive report to the Euromech Committee). So a biannual sequence of conferences was envisaged with the second conference to be held in Berlin from August 30 to September 2, 1988 under the chairmanship of H.H. Fernholz and H.E. Fiedler. The Committee invited J. Engelbrecht (Tallin) and K. Sobczyk (Poland) to serve as members of the Committee for a period of five years from 1 January 1988, C. Cercignani was co-opted for another year. After Batchelor had drawn attention again to the need for the Committee to choose his successor as chairman, the Committee had a discussion about the officers of the Committee in the absence of the members concerned. The Committee unanimously agreed to appoint D.G. Crighton as Chairman and H.H. Fernholz as Secretary for 1988.

L. van Wijngaarden who had taken the Chair during the discussion about the officers expressed warmest thanks to G.K. Batchelor for his 23 years of office on behalf of the Committee and of all the old members. The Committee gave Batchelor a standing ovation (the impromptu laudatio is given in the record of the Cambridge Committee meeting). Batchelor's reply was in his letter to members of the Committee (6<sup>th</sup> November 1987) and reads:

“This is probably my last communication to you as Chairman of the Committee. I put down my Euromech pen with some regret, since helping our small organization to become a useful and respected agency of the mechanics community in Europe has been an interesting, pleasant and gratifying experience. I appreciate very much the kind words expressed at our last meeting, and want to thank you all for your unfailing support and co-operation. The fact that EUROMECH is in such good hands makes it easy to retire. And now over to David Crighton!”

### **Euromech Committee Meeting in Zurich, on May 6 and 7, 1988**

There were 22 proposals for Colloquia and after the usual extended discussion the Committee approved 15 Colloquia to be held in 1989. The Euromech Committee asked the Chairman of the Turbulence Sub-Committee (J.C.R. Hunt) to routinely provide a record of meetings of the Sub-Committee and a current list of its members. The Committee approved the revised version of the EUROMECH documents by Batchelor. The Committee appointed D.G. Crighton and B. Lundberg to serve as members of the Committee for a further period of five years from 1<sup>st</sup> January 1989 and co-opted C. Cercignani for 1989. H.H. Fernholz informed the Committee that there would be a need

to look for his successor as Secretary after December 31<sup>st</sup> 1989.

D.G. Crighton and H.H. Fernholz were reappointed as Chairman and Secretary, respectively, for 1989. The Committee took note of a proposal for a European Fluid Mechanics Conference. After an extended discussion the Committee appointed a Sub-Committee consisting of G.K. Batchelor, C. Cercignani, D.G. Crighton, H.H. Fernholz, R. Moreau and L. van Wijngaarden. The Sub-Committee will ascertain the details of all national fluid dynamic meetings in Europe and of other relevant meetings, would work out possibilities in particular on the relationship between the proposed conference and national meetings and will present them to the Euromech Committee.

H.H. Fernholz informed the Committee about the launch of a European Journal of Mechanics A (Solids) and B (Fluids) as a successor of the Journal de Mécanique in 1989.

### **Euromech Committee Meeting in Tallin (Estonia), on April 14 and 15, 1989**

After an extended discussion of the 19 Colloquia suggested to the Committee 14 Colloquia were approved for 1990 and for 1991. The reports by the Chairman of the Turbulence Sub-Committee, J.C.R. Hunt, and by the organizers of the 2<sup>nd</sup> ETC, H.H. Fernholz and H.E. Fiedler (Berlin), were accepted. The Committee approved Stockholm as the place for the 3<sup>rd</sup> ETC to be held in July 1990. I. Ryhming (Lausanne) and J. Jimenez (Madrid) were appointed for a period of six years as members of the sub-committee. The Euromech Committee agreed that the first European Fluid Mechanics Conference (EFMC) would be held in Cambridge in 1991. J. Lemaitre (Paris)<sup>38</sup> reported considerable support among colleagues in solid mechanics for the holding of a European Solid Mechanics Conference along the lines already proposed for the EFMC. The Committee agreed to be responsible for the organization of an initial ESMC, and then, if it was successful, for a series of conferences. The organization of the EFMC and the ESMC would be supervised by standing committees, one for each series of conferences. The EFM/ ESM Committee would be composed of the fluids/ solids members of the Euromech Committee plus about four other members for six years, with the Chairman being preferably one of the Euromech Committee members. G.K. Batchelor and W. Schiehlen agreed to be the first chairmen of the two conference committees.

Arising out of the discussion, it was agreed that this would be an appropriate time to change the name of the Committee to European Mechanics Council, and in future to use the term Committee



to denote the bodies appointed by the Council to undertake specific tasks. Batchelor undertook to revise the terms of reference and rules of procedure of the European Mechanics Committee appropriately. The Committee appointed F. Sidoroff (France) and G. Seminara (Italy) to serve as members of the Council for five years as of 1 January 1990. The Council unanimously agreed to appoint D.G. Crighton as Chairman and B. Lundberg as Secretary for 1990. Both members accepted. The Chairman expressed the deep gratitude of the Council for the long and devoted work of Hans Fernholz as Secretary.

### **Meeting of the European Mechanics Council in Grenoble, on April 27 and 28, 1990**

There were 17 proposals for Colloquia and 13 were accepted by the Council (8 on fluids and 5 on solids). W. Schiehlen, Chairman of the ESMCC and F. Pfeiffer (Munich) reported on the preparations for the 1<sup>st</sup> ESMC, and G.K. Batchelor, Chairman of the EFMCC, together with D.G. Crighton on the preparation for the 1<sup>st</sup> EFMCC. The Chairman had been informed on the progress of the 3<sup>rd</sup> ETC by its Co-Chairman A.V. Johansson (Stockholm) and new members of the ETCC were appointed. E.-A. Müller (Göttingen) and E.J. Hopfinger (Grenoble) were invited to serve on the Council for a period of five years from 1 January 1991 and H.H. Fernholz was co-opted for the year 1991. The Council agreed to reappoint D.G. Crighton as Chairman and B. Lundberg as Secretary for 1991.

### **Meeting of the European Mechanics Council in Stuttgart, on April 19 and 20, 1991**

Out of the 15 proposals for 1992 6 proposals on fluids and 6 on solids were accepted by the Council. W. Schiehlen reported that 455 papers had been submitted to the first European Solid Mechanics Conference and 300 would be accepted by the ESMCC. G.K. Batchelor reported that 330 papers had been submitted to the first European Fluid Mechanics Conference and 250 would be accepted. The ESMCC and EFMCC would recommend times and places for future conferences and the EMC should make the final decision. On the membership of the Turbulence Conference Committee (ETCC) several actions were agreed, e.g. a slot for an EMC representative was added and filled initially by G.K. Batchelor. The membership of the ETCC would in the future be decided by the EMC and the rules and procedures for the TCC would be worked out by the Chairman of the EMC. It was agreed unanimously to appoint N. Jones (UK) and F. Pfeiffer (Munich) to serve as members of the Council for a period of 5 years from 1 January 1992. The Chairman expressed the warm

appreciation, of the Council and the community of researchers in mechanics worldwide, of the great contributions to Euromech activities made by G.K. Batchelor, H.H. Fernholz and W. Schiehlen whose terms of office would expire on 31 December 1991. The Council reappointed D.G. Crighton as Chairman and B. Lundberg as Secretary for 1992.

Here some general remarks are appropriate about the various decisions concerning the EUROMECH conferences as summarized by D.G. Crighton in July 1989.



## **EUROMECH Conferences**

“The general purpose of Euromech Conferences is to provide opportunities for scientists and engineers from all parts of Europe, East and West, to discuss current research. The conferences in question are broad in scientific scope, are open to all those interested, and are expected to have a number of participants between 150 and 600. The subjects of these conferences are Turbulence, Fluid Mechanics and Solid Mechanics, and each of these subjects is expected to yield a series of conferences at regular intervals. The fact that the conferences are organized by Europeans primarily for the benefit of Europeans should be kept in mind. Qualified scientists from any other country are of course welcome as participants, but the need to improve communications within Europe is relevant to the scientific programme and to the choice of the leading speakers. These Conferences should be forums for discussions of the most important developments in current research. Included in the programme will be several mini-symposia each running over half a day or a whole day focusing on a special topic.

The European Mechanics Council (formerly the European Mechanics Committee) delegates responsibility for the general planning and supervision of each series of conferences to a standing committee- the Turbulence Conference Committee (TCC), the Fluid Mechanics Conference Committee (FMCC), and the Solid Mechanics Conference Committee (SMCC). Appointments to these Committees are made by the EUROMECH Council (EMC) and there is normally some common membership with the EMC. The EMC will appoint a Chairman of each conference standing committee.

The EMC has no money at its disposal. Each conference must be entirely self-supporting financially. It is a long-standing principle of the EMC that the cost of participation in a scientific meeting should be kept as low as possible, in order to avoid financial problems for younger people and for those who are subject to restrictions on foreign currency.

The duration of a fluid or solid mechanics conference should be about five days, and that of a turbulence conference three or four days. The standing conference committee will wish to identify areas in which a clear exposition of recent developments would be especially valuable, and to match up timely topics with lecturers of known quality. The remaining ingredients in the programme

are oral presentations of the participants, poster sessions and time for questions and open discussions (further details can be found in Notes on Conferences held by the European Mechanics Council, July 1989).

The EMC set up a standing European Fluid Mechanics Conference Committee (EFMCC) and a standing European Solid Mechanics Conference Committee (ESMCC) for the first Conferences in September 1991 to be held in Cambridge and Munich under the Chairmanship of Professor G.K. Batchelor and Professor W. Schiehlen, respectively. The ESMCC and the EFMCC should recommend times and places for future conferences. The EMC should make the final decisions.

The idea of Europe-wide conferences on fluid and solid mechanics was given a general welcome and the EMC decided on an interval of three years between subsequent Conferences. It was decided to hold the second EFMC in Warsaw (Poland) in 1994 so that it could be demonstrated by Professors Fiszdon and Zorski that the spirit of the well-known series of Biannual Fluid Dynamics Symposia in Poland could be transferred to the larger-scale European Conferences. Proceedings of the Conference were not intended to be published.

In 1993 G.K. Batchelor notified the EFMCC that in resigning from the Euromech Council he would also resign as Chairman of the EFMCC. H.H. Fernholz was appointed as his successor<sup>39</sup> as of 1 January 1995.

### **The EUROMECH Fluid Mechanics Conferences (EFMC) 1991-2000**

The first EFMC was held in Cambridge (UK) on 16 to 20 September 1991. The Chairman, G.K. Batchelor, had introduced the idea of a “debate” at the opening of the EFMC in Cambridge with the title “The relevance of low-dimensional dynamical systems for fluid mechanics?”. N.O. Weiss (Cambridge) moderated the two opponents with their statements “A lot” Manneville (France) and “A little” G.I. Barenblatt (Russia).

There were 20 invited lectures covering topics such as Biomechanics of Hearing Sensitivity (J. Lighthill) and Computational Methods for the Navier-Stokes Equations (B. Enquist). In addition 280 papers were presented spread over Mini-Colloquia, Oral Papers (about 25 minutes) and Posters.



The three Mini-Symposia dealt with the topics Aerodynamics of Combustion, Disperse Two-Phase Flow and Separating Boundary Layers. No formal volume of proceedings of this conference was published and authors were advised to seek publication for their work in the standard archival journals dealing with fluid mechanics.

The 2<sup>nd</sup> EFMC was held in Warsaw on 20 to 24 September 1994. The debate at the beginning was on the topic “The respective roles of analysis, computations and experiment in fluid mechanics” with three speakers presenting their theme for 30 minutes each, F.T. Smith (London), E. Krause (Aachen) and Y. Couder (Paris). These debates were, however, not continued and replaced by the EUROMECH Fluid Mechanics Lecture. The Chairman of the Local Organizing Committee was W. Fiszdon and there were 16 invited lectures, abstracts of which are given in the Programme of the Conference. Topics ranged from Mechanics of Coastal Forms to Orientation of Polymers in Potential Flows. Due to the improved political situation in Eastern Europe a relatively large number of papers was presented by speakers from the former USSR.

The 3<sup>rd</sup> EFMC was held in Göttingen on 15 to 18 September, 1997, starting with the newly introduced “EUROMECH Fluid Mechanics Lecture” under the heading: “Towards a Theory of Intermittency”, delivered by U. Frisch (Nice). Besides the 10 invited lectures there were 3 Mini-Symposia on Forced Flows with Solidification, Dispersed Multiphase Flows and Turbulent Mixing-Mechanisms and Control. I. Rehberg (Magdeburg) gave a lecture for the interested public on “Granular matter: shaken, not stirred and very dry, with experiments”. The oral presentations were delivered in seven parallel sessions with the main topics centered around turbulence, stability, vortex dynamics, and multiphase flows. E.A. Müller was the Chairman of the Local Organizing Committee and there were 477 participants, again a large number from Russia or former states of the USSR.

The 4<sup>th</sup> EFMC took place in Eindhoven (The Netherlands) on 19-23 November, 2000 under the chairmanship of L. van Wijngaarden. He succeeded H.H. Fernholz in January 1998 who had been elected President of the EUROMECH Council in 1997.

At the beginning of this conference memorial addresses in honour of G.K. Batchelor and D.G. Crighton were given and the 2000 EUROMECH Fluid Mechanics Lecture was delivered by G.I.

Barenblatt on “Fluid Mechanics in the 20<sup>th</sup> Century”. There were 11 invited lectures, 3 Mini-Symposia and about 300 contributed papers (oral and poster presentations). The Chairman of the Local Organizing Committee was G.J.F. van Heijst. The topics of the Minisymposia were: Environmental Fluid Mechanics, Non-Newtonian Fluid Mechanics and Biological Fluid Mechanics.

### **The EUROMECH Solid Mechanics Conferences (ESMC) 1991-2000**

At the 1<sup>st</sup> ESMC in Munich on 9-13 September, 1991, 13 survey lectures were presented as well as 308 short lectures from 34 countries in 7 parallel sessions. The aim of providing an overall view of European activities in the field of solid mechanics and of setting a standard for further conferences was achieved.

The Chairman of the Local Organizing Committee (LOC) was F. Pfeiffer. The Conference covered topics such as Continuum Mechanics, Material Mechanics and Micromechanics, Structures, Composite Materials, Wear, Fracture and Damage, Dynamics, Vibrations and Control, Contact Problems.

The 2<sup>nd</sup> ESMC was held in Genova, on 12-16 September, 1994. There were 340 participants from 32 countries who listened to 13 survey lectures. About 20% of the accepted oral presentations were not presented due to the absence of the authors. 34% of the participants came from the former USSR and other Eastern European countries and many of them received financial support. The opening lecture was given by J. Hult with the topic: “The Mechanical Clock”. The Chairman of the LOC was A. Del Grosso.

The 3<sup>rd</sup> ESMC in Stockholm, on 12-22 August 1997, is documented in more detail than the previous one and covered the entire field of theoretical, computational and experimental solid mechanics. The Chairman of the ESMCC was N. Jones (Liverpool) and the Chairman of the Local Organizing Committee B. Storakers (Stockholm). A total of 393 participants attended the conference. 8 invited plenary lectures were given preceded by the EUROMECH Solid Mechanics Lecture “Studies of Micromechanics of Materials” presented by V. Tvergaard (Lyngby). 341 papers were accepted out of 582 abstracts received. The Conference was believed to be successful both from a scientific and a social point of view.



The 4<sup>th</sup> ESMC in Metz, on 26-30 June 2000 was a double conference consisting of the 4<sup>th</sup> EUROMECH Solid Mechanics Conference and the 4<sup>th</sup> EUROMECH Mechanics of Materials Conference. 700 papers from 47 countries were accepted (with 198 from France) and 630 participants attended the conference. It was chaired by M. Potier-Ferry and L.S. Toth and by E. Gauthier und M. Clavel for the MECAMAT Conference, the latter with 69 oral or poster presentation. The EUROMECH Solid Mechanics Lecture was presented by V.V. Bolotin (Russia). There were 8 plenary lectures, 20 general sessions, 13 Mini-Symposia and 200 poster presentations coupled to the oral parts of the sessions. Two prizes of 500 € were given to young scientists for an oral and for a poster presentation.

In 1991 discussions began among the members of the EUROMECH Council leading to the European Mechanics Society and it seems appropriate to present these deliberations in context and not split them up into decisions taken at several Council meetings.

## **The transformation of the EUROMECH Committee to the European Mechanics Society**

In connection with the discussion of the European Solid and Fluid Mechanics Conferences it was agreed at the meeting of the European Mechanics Committee in Tallin in April 1989 to change the name of the Committee to European Mechanics Council. G.K. Batchelor undertook to revise the terms of reference and rules of procedure of the European Mechanics Committee appropriately and the first four paragraphs read:

1. The function of the European Mechanics Council is to arrange meetings of scientists and engineers in Europe for the exchange of ideas and information about developments in theoretical, experimental, and applied mechanics.
2. The meetings may be of different types, including both small closed colloquia on specialized topics and large open conferences on broad subjects.
3. The meetings arranged by the Council should be characterized by simplicity, international friendship, and scientific effectiveness.
4. General principles and guidelines concerning the organization and each type of meeting will be drawn up by the Council.

The organization of larger conferences went far beyond the financial and organizational means of a Chairman even in cooperation with a Co-Chairman and so it was necessary to have a committee for each of the larger conferences with the Euromech Council as, so to speak, the governing body following the pattern of the Euromech - European Turbulence Conference Committee.

The European Mechanics Council gave much thought to these and related issues and addressed two questions, first to all Euromech Correspondents and then to all national organizations in mechanics in Europe (1) whether a Society is needed for mechanics in Europe and (2) whether EUROMECH itself is best placed to create such a Society through transformation of itself. The replies were overwhelmingly in favour.

With the written responses from a relatively large number of leading scientists in Europe as a basis, all participants in the meeting (Berlin, February 1992) presented their opinions on a European Mechanics Society as a formal structure. Several matters associated with such a society



were discussed in detail, e.g. aims, organization, membership, relations to national organizations, economy, locality, constitution, name, and time table.

After due consideration by the Council the title of the Society was determined “EUROMECH - European Mechanics Society. The EMC proposed, unanimously, to transform the present Euromech Organization into a European Mechanics Society. It will be an international non-governmental non-profit scientific organization. The legal seat of the Society is the place of residence of the Secretary General. The task of proposing a constitution and a time table for the transformation was entrusted to the Chairman.

The work of the Society required financial support at a higher level than under present arrangements where members of the Council and of Standing Committees had to meet their own expenses through their institutions or national organization. This support had to come largely from members of the Society and membership involved therefore payment of a modest annual fee.

The European Mechanics Council<sup>40</sup> has overall responsibility for Euromech Colloquia and Euromech Conferences. Euromech Colloquia are informal meetings on specialized topics. Participation is restricted to a small number of European research workers actively engaged in the field of each Colloquium.

Euromech Conferences are broad in scientific scope. They are open to all those interested, and are expected to have a number of participants between 150 and 600. The general purpose is to provide opportunities for scientists and engineers from all parts of Europe to meet and discuss research.

The final proposal for Statutes of the Society was presented by the Chairman and W. Schiehlen at the EUROMECH Council meeting in 1993. After continued careful discussions, the Statutes of the Society were confirmed, and the time table for the transformation of Euromech into a Society was adopted. The members of the Council declared themselves Founding Members of the Society, and decided that the Council should act as Interim Council of the Society till 31 December 1994. Furthermore, it was decided that the Statutes should be applied to the Conferences to be held in 1994 (with respect of a contribution from the registration fee of non-members of the Society) but not to the Colloquia to take place in the same year.

The Euromech documents “Terms of Reference and Rules of Procedure” were replaced by the Statutes of the Society and will no longer be used. The Chairman was asked to produce a new “Notice” document which will present the main features of the transformation of Euromech into a Society, the European Mechanics Society or EUROMECH Society.

After these two special sections we return to the meetings of the European Mechanics Council between 1992 and 2000. A change from previous years was that there were three meetings of the Council in 1992 where the transformation of the Euromech Committee to a Society was extensively discussed.

### **Meeting of the European Mechanics Council in Berlin, on February 1 and 2, 1992**

Apart from all members of the Council the previous members of the EMC G.K. Batchelor, H.H. Fernholz and W. Schiehlen took part in the meeting. On request of Professors G. Schmidt (formerly East Berlin) and E. Kreuzer (TU Hamburg) the International Conferences on Nonlinear Oscillations, which had up to then taken place in the former Socialist Countries, be organized as Euromech Conferences in the future. W. Schiehlen was appointed Chairman of the ESMCC until 1995.

### **Meeting of the European Mechanics Council in Udine (Italy) on April 3 and 4, 1992**

There were 22 proposals for Euromech Colloquia under discussion and the Council accepted 8 on fluids, 7 on solids and 2 on fluids and solids.

The Chairman thanked F. Pfeiffer very warmly for having done an outstanding job as chairman of the local organizing committee of the 1st ESMC (Munich 1991). W. Schiehlen reported on the preparations for the 2nd ESMC in Genoa 1994. D.G. Crighton presented a written report on the 1<sup>st</sup> EFMC (Cambridge 1991). F. Pfeiffer reported on the preparations for the 1st ENOC (European Non-linear Oscillations Conference) to be held in Hamburg-Harburg on 16 to 20 August 1993. E. Hopfinger reported on the preparations for the 4th EUROMECH ETC to be held in Delft, 30 June - 3 July, 1992. The list of Euromech Correspondents was revised as in every year. Correspondents in the former USSR, who remained on the list, would represent their new countries.



It was agreed to appoint M. Kleiber (Poland) and R. Dvorak (Czechoslovakia) to serve as members of the Council from 1 January 1993 and to co-opt G.K. Batchelor and W. Schiehlen on a year-by-year basis as long as they hold the chairmanship of the SMCC and the FMCC, respectively. The Council appointed D.G. Crighton as Chairman and B. Lundberg as Secretary for 1993. It was decided to form a Working Group for a EUROMECH Constitution with D.G. Crighton, B. Lundberg, W. Schiehlen (Chairman), F. Sidoroff and L. van Wijngaarden as members which would meet in Stuttgart on 2 June 1992. The next meeting of the EMC would take place in Munich, 17 and 18 October 1992.

### **Meeting of the European Mechanics Council in Munich, on October 17 and 18, 1992**

After discussions of possible forms of membership and other matters it was decided that the Working Group on the Statutes of the Society should make a third draft of the Constitution and circulate it to the members of the EMC. Newsletter 1 was published in August 1992 as the first of a regular series of Newsletters from the European Mechanics Council. These newsletters would provide information to researchers in mechanics throughout Europe on forthcoming Euromech Colloquia and Conferences, and on a broad range of other activities and issues affecting research in mechanics.

### **Meeting of the European Mechanics Council in Ecully (France) on April 2 and 3, 1993**

After a thorough discussion of 17 Proposals for Colloquia 6 on fluids, 7 on solids and 2 on fluids and solids were accepted. There were reports on the planned 2nd ESMC in Genoa in September 1994 and the 2<sup>nd</sup> EFMC in Warsaw in September 1994. F. Pfeiffer, Chairman of the NOCC, reported on the preparations for 1<sup>st</sup> ENOC which would take place in Hamburg on 16 to 20 August 1993. B. Lundberg was appointed Representative of Euromech in the General Assembly of IUTAM and L. van Wijngaarden observer of IUTAM on the Interim Council.

D.G. Crighton and B. Lundberg were appointed to serve as members of the Interim Council during 1994 and G.K. Batchelor, F.T.M.N. Nieuwstadt and W. Schiehlen, Chairmen of the FMCC, the TCC and the SMCC, respectively, were appointed to serve as co-opted members during 1994.

Appointments of members of the SMCC, the FMCC and the TCC were approved.

**40** D.G. Crighton was appointed President, B. Lundberg Secretary General, and E.-A. Müller (Göttingen)

Treasurer of the Society till 31 December 1994 on an interim basis. In agreement with the Statutes of the Society G.K. Batchelor would be asked to act as Vice President during the same period.

### **Meeting of the EUROMECH Council in Cambridge (UK), on April 8 and 9, 1994**

The Council adopted some slight modifications to the Statutes and Bye-Laws of the Society to allow more flexibility in the co-operation with affiliated organizations. After a meeting of EUROMECH and GAMM (Gesellschaft für Angewandte Mathematik und Mechanik) representatives in Stuttgart<sup>41</sup> in March 1994 it was decided that GAMM should become an Affiliated Organization of EUROMECH. This was approved by the EUROMECH Council. Affiliated Organizations are dealt with in Article XI of the Statutes. The Council had asked 8 persons to serve as members of the Interim Advisory Board for a turn of 2 years and all of them accepted with H.H. Fernholz as the Convenor of the Board (see Article VII of the Statutes) and the Bye-Laws. The main duty of the Board was to conduct the election to the Council in October 1994. The Council discussed thoroughly 20 proposals for Euromech Colloquia in 1995 and accepted 9 on fluids, 4 on solids and 2 on fluids and solids. The list of EUROMECH Correspondents was routinely revised. N. Jones was appointed Chairman of the ESMCC as successor to W. Schiehlen. F. Pfeiffer reported on the 1st ENOC held in Hamburg, on 16-20 August 1993. The President reported on the status of the European Journal of Mechanics A/B as an official medium of publication of the Society. The Council decided to ask G.K. Batchelor and H.H. Fernholz to write about the First Thirty Years of EUROMECH. For better information of the readers we include here the list of members of the EUROMECH Council in 1994 and of the Advisory Board (till December 1994).

The EUROMECH Council Members in 1994: D.G. Crighton (President), R. Dvorak, E.J. Hopfinger, M. Kleiber, B. Lundberg (Secretary- General), E.A. Müller (Treasurer), G. Seminara, F. Sidoroff.

The Interim Advisory Board (till December 1994): C. Cercignani, J. Engelbrecht, H.H. Fernholz (Convenor), S. Kaliszky, A. Linan, R. Moreau, B. Storakers, J. Willis.

### **Meeting of the EUROMECH Council in Uppsala (Sweden), on April 7 and 8, 1995**

Out of the 16 proposals for Colloquia in 1996 4 on fluids and 8 on solids were accepted. H.H. Fernholz, the new Chairman of the EFMCC, and the President reported on the 2<sup>nd</sup> EFMC held in Warsaw in 1994.

P.A. Monkewitz reported on the 5<sup>th</sup> ETC held in Sienna and the preparations for the 6<sup>th</sup> ETC to be held in Lausanne in July 1996.

J. Lemaitre presented a proposal from MECAMAT to launch a EUROMECH MECAMAT Conference series in the broad field of mechanics and materials.

J. Lemaitre and H.H. Fernholz reported on the cooperation between EUROMECH and the European Journals of Mechanics A/B.

The membership fee in 1996 will be 45 DM for individual members.

At the time of the Council meeting there were 644 individual members. Besides GAMM the following Affiliated Organization were accepted: AUM (France), AIMETA (Italy), CCEMS (Czech Republic), The Ukrainian Society of Mechanical Engineers (as of 1996) and the BYELOMECH Society of Mechanical Engineers.

It was decided to terminate the system of EUROMECH Correspondents as of the end of 1995. The following persons were appointed members of the Advisory Board for the 6 year period 1995-2000: C. Cercignani, (Convener), S. Kaliszky, A. Linan, R. Moreau, B. Storakers, and J. Willis. D.G. Crighton was a member ex officio as President.

H.H. Fernholz, N. Jones, F.T.M. Nieuwstadt and F. Pfeiffer, Chairmen of EUROMECH Conference Committees were invited to serve as members of the Council. V.N. Kukudzhanov and W. Schiehlen were co-opted for 1996, D.G. Crighton was re-elected as President, B. Lundberg as Secretary-General and E.-A. Müller as Treasurer.

D. Ronneberger, Göttingen, was appointed Auditor for 1995.

### **EUROMECH Council Meeting in Prague (Czech Republic), on April 12 and 13, 1996**

The President reported on the meeting of the Executive Committee (composed of the Officers) held in Berlin on 3-4 February 1996.

42 Out of the 15 proposals for Colloquia in 1997 12 were accepted in addition to the 4 accepted

previously. There were 4 on fluids, 9 on solids and three on fluids and solids. 5 proposals were accepted for 1998.

At the 3<sup>rd</sup> ESMC in Stockholm in August 1997 there would be a general lecture called the “1997 EUROMECH Solid Mechanics Lecture”.

At the 3<sup>rd</sup> EFMC in Göttingen the general lecture would be called the “1997 EUROMECH Fluid Mechanics Lecture”. F.T. Nieuwstadt reported on the preparations for the 6<sup>th</sup> ETC to be held in Lausanne in July 1996.

The 2<sup>nd</sup> ENOC would be held in Prague in September 1996.

J. Lemaitre reported on the preparations for the 1<sup>st</sup> EUROMECH Mechanics of Materials Conference (EMMC - MECAMAT) to be held in Fontainebleau in September 1996. The 2<sup>nd</sup> EMMC would take place in Magdeburg in 1998.

The Treasurer’s report for 1995 was presented and the Auditor’s reports for 1994 and 1995 were considered. The proposal from the President concerning financial support of the Officers was approved as a contribution to the costs of their work for EUROMECH. MECAMAT (France) and IMA (UK) were accepted as Affiliated Organizations from 1996 and 1997, respectively.

V.N. Kukudzhanov and W. Schiehlen were co-opted to the Council for 1997 and it was noted that L. van Wijngaarden will continue as IUTAM observer for 1997.

D.G. Crighton was reappointed President and E.A. Müller Treasurer for 1997. B. Lundberg would not be able to continue as Secretary-General after 1996 (changed to the end of 1997 (Record of Officer’s meeting October 1996)).

D. Ronneberger was appointed Auditor for 1997. Further it was noted that GAMM should appoint a member of the Advisory Board.

### **EUROMECH Council Meeting in Liverpool (UK), on April 11 and 12, 1997**

The records from three Officer’s Meetings, held since the last Council Meeting were noted. The financial report for 1996 was approved and the Auditor’s report for 1996 was noted and D. Ronneberger reappointed as Auditor for 1998.

It was decided to affiliate MECAMAT from 1997.

The Council noted the membership of the EUROMECH Advisory Board. The Council was aware of the need to elect five members for the Council for the period 1998-2003.



B. Lundberg was appointed Secretary-General for 1997.

H.H. Fernholz was appointed President and E. Hopfinger Treasurer for 1998.

A possible candidate to be elected Secretary-General for 1998, who is presently not a member of the Council, was discussed.

D.G. Crighton (UK) and M. Kleiber (Poland) were appointed Assistant Treasurers for 1998.

The present set of EUROMECH documents was noted. P. J. Finley (the new Editor of the Newsletter) reported on his work with the Newsletter, and several Council Members expressed their great satisfaction with his work. H.H. Fernholz and J. Lemaitre reported on the cooperation between EUROMECH and the European Journals of Mechanics A/B and the special prices for Members of EUROMECH.

There would be 15 Colloquia in 1998, 8 on fluids and 7 on solids. It was decided that the 4<sup>th</sup> ESMC and the 4<sup>th</sup> EFMC would take place in the year 2000. The 3<sup>rd</sup> ENOC would be held in Paris, in 1999, and the 7<sup>th</sup> ETC in Saint Jean Cap Ferrat, France, in 1998. The following re-appointments of Chairmen of Conference Committees were made: N. Jones (ESMCC) till the end of 2000, F. Pfeiffer (ENOCC) till the end of 1999 and F.T.M. Nieuwstadt (ETCC) till the end of 1998. He would be succeeded by D. Henningson from 1st January 1999.

### **EUROMECH Council Meeting at Udine (Italy), on April 17 and 18, 1998**

The President expressed warmest thanks to members whose term of office in the Council had come to an end, especially to the Secretary-General B. Lundberg and the Treasurer E.-A. Müller. D.G. Crighton was now the Vice-President. There was a report on the Officers' Meeting in Berlin on January 17 and 18, 1998. The financial report for 1997 was approved and the Auditor's report (D. Ronneberger) was noted. At the date of the meeting there were 1245 members of the EUROMECH Society. The Chairmen of the EUROMECH Conference Committees would be invited according to specific needs of the individual Committees. They had no voting rights at Council meetings unless they are elected members of the Council. The Council appointed unanimously H.H. Fernholz as President and E. Hopfinger as Treasurer for 1999. M. Okrouhlik was appointed Secretary-General for 1998 and for 1999. It was suggested that the best lectures and best posters during EUROMECH conferences and colloquia should be rewarded in the future. Reports on the 3<sup>rd</sup> ESMC and the 3<sup>rd</sup> EFMC were noted. The Council appointed three new members of the ESMCC

and the EFMCC, respectively, for the period 1998-2003 and six new members of the ETCC for the period 1998-2001. The membership of the ENOCC and MECAMATCC remained unchanged. There would be 18 colloquia in 1999, 7 on fluids, 10 on solids and 1 on solids/ fluids.

The Council unanimously elected Professor G.K. Batchelor and Professor W. Fiszdon to Honorary Membership of EUROMECH.

### **EUROMECH Council Meeting in Cambridge (UK), on April 9 and 10, 1999**

H.H. Fernholz informed the Council members about the illness of the Vice-President and the Council sent its best wishes and thoughts to D.G. Crighton.

The financial report and the Auditor's report for 1998 were approved and so was the budget for 1999. The unit of subscription was agreed to be changed to 8 Euros. It was suggested that the CV and the photographs of candidates for the elections to the Council in the year 2000 should be published in the Newsletter in May 2000 before the ballot sheets were sent to the EUROMECH membership.

The President (H.H. Fernholz), the Treasurer (E. Hopfinger) and the Secretary General (M. Okrouhlik) were confirmed unanimously for the year 2000. The updated EUROMECH Documents were available on the EUROMECH web page. The new Co-chief Editors of EJM/ B-Fluids F. Dias and G.J. van Heijst had taken over from H.H. Fernholz and P. Huerre as of 1 January 1999. It was agreed that T.J. Pedley would represent the EUROMECH Society at the IUTAM General Assembly until 31 December 2000 in succession to B. Lundberg. The 3<sup>rd</sup> ENOC would be held in Copenhagen on 8 to 12 August 1999. 8 proposals for EUROMECH Colloquia were approved for 2000 in addition to the 5 Colloquia already accepted at Udine in April 1998 (4 on fluids and 7 on solids, 2 other).

### **EUROMECH Council Meeting in Vienna, on April 6 to 9, 2000**

H.H. Fernholz opened the meeting and asked Council members to stand in honor of G.K. Batchelor, Honorary Member and former Chairman of the EUROMECH Committee, who had died on 30 March 2000. T.J. Pedley read the obituary written by D.G. Crighton:

5 April 2000



*“It is with the greatest regret that I have to tell you that Professor G.K. Batchelor died at Midfield Lodge Nursing Home early in the evening of March 30th. George had been unwell for some time, and he died entirely peacefully after five days of more intensively distressing illness, during which he had become increasingly unaware of his surroundings. There will be a small and strictly private memorial service at the crematorium in the near future, but an open Service of Commemoration will be arranged by Trinity College at some period in the middle of July at which all his daughters can be present.*

*A great deal more can be said and should be said about the many lasting contributions made by George to science. These include the foundation of DAMTP, the expansion of student intake to undergraduate and graduate applied mathematics here, his founding and editorial work of the Journal of Fluid Mechanics through forty-three years from its inception, his development of EUROMECH as a major force for mechanics throughout Europe, his editorship for more than forty-five years of the Cambridge book series “Cambridge Monographs on Mechanics and Applied Mathematics”, and in numerous other ways, which have had a lasting influence on literally thousands of young people who have worked in DAMTP since it was founded by George Batchelor back in 1959.*

*For the influence and for so much more, we must all be the poorer through George’s death, but we shall benefit from George’s work for generations to come.”*

*Professor D.G. Crighton FRS, Head of Department*

(This was the last EUROMECH document written by the Vicepresident before his own death on 12 April 2000).

The financial report (Treasurer) and the Auditor’s report (D. Ronneberger) for 1999 and the budget for 2000 were approved. The Council reelected the President H.H. Fernholz, the Treasurer E. Hopfinger and the Secretary-General M. Okrouhlik for 2001. E. Hopfinger was co-opted as a member of the Council for 2001. T.J. Pedley was asked to represent the EUROMECH Society at the IUTAM General Assembly until 31 December 2001.

N. Jones (Chairman of the ESMCC) reported on the progress with the preparations for the 4<sup>th</sup> Solid Mechanics Conference in Metz (France). H.H. Fernholz reported on the preparations of the 4<sup>th</sup> Fluid Mechanics Conference to be held at Eindhoven (The Netherlands). The Council approved the 5<sup>th</sup> EFMC to be held at UTI in Toulouse in August 2003 with Professors J. Fabre and J. Magnaudet

as local organizers. The preparations for EUROMECH ETC 8 in Barcelona in June 2000 were going well. The Council approved EUROMECH ETC 9 to be held in Southampton in July 2002 with I.P. Castro as the organizer. Apart from the proposals for EUROMECH Colloquia 420, 421 and 422 approved at the Council meeting in Cambridge, the Council approved 7 Colloquia (3 in fluids and 4 in solids) for 2001. The Council appointed B. Schrefler (Italy) as a member and the Chairman of the ESMCC for the period January 2001 to 31 December 2003. The Council appointed the following members of the EFMCC for the period of office 2001-2006: P. Huerre (France), V.V. Meleshko (Ukraine), W. Schröder (Germany) and co-opted G.J.F. van Heijst for 2001. The Council appointed E. Kreuzer (Germany) as a member and as Chairman of the ENOC for the period 1 January 2000 to 31 December 2002. The Council appointed L. Kleiser (Switzerland) as a member and as Chairman of the EUROMECH ETCC for the period 1 January 2001 to 31 December 2003. and the following members I. Couder (France), H.H. Fernholz (Germany), G.J.F. van Heijst (The Netherlands), R. Piva (Italy) and D. Ronneberger (Germany) for the period 2001 to 2003.. For the period of office 2001-2006 the Council appointed K. Bajer (Poland), A. Johansson (Sweden) and C. Vassilikos (UK) and for the period 1 January 2001 to 31 December 2002 I.P. Castro (UK).

## Honorary Members of the EUROMECH Society

At the meeting of the EUROMECH Council in Udine in 1998 it was decided to create the status of honorary member of the EUROMECH Society. The first persons to receive this award were Professors G.K. Batchelor (Cambridge) and W. Fiszdon (Warsaw) (the citations are given in NL 12).

They have both been immensely influential in the formation and in developing the spirit of EUROMECH from the earliest days, and have both contributed an enormous effort to the administration of the meetings, and later the Society. Their academic records are virtually unmatched.

In 2004 the EUROMECH Council elected Professors P. Germain (Paris), E. Krause (Aachen), W. Schiehlen (Stuttgart) and L. van Wijngaarden (Twente). Since their citations were apparently not widely published they will be given below:

Prof. P. Germain: As a token of esteem in which he and his work in Mechanics are held in Europe and in recognition of his work for EUROMECH as a Committee member in the early phase of EUROMECH when important discussions about the organization of mechanics had to be conducted on a European and international level.

Prof. E. Krause: As a token of esteem in which he and his work in Fluid Mechanics are held in Europe and in recognition of his work for EUROMECH by proposing the establishment of the Euromech European Turbulence Conferences and by his firm and longstanding support of scientific cooperation in Europe.

Prof. W. Schiehlen: As a token of esteem in which he and his work in Solid Mechanics are held in Europe and in recognition of his work for EUROMECH as a longstanding member of the Council, Chairman of the EUROMECH Solid Mechanics Committee, Chairman of several Euromech Colloquia and Conferences and one of the founders of the Euromech Society.

Prof. L. van Wijngaarden: As a token of esteem in which he and his work in Fluid Mechanics are held in Europe and in recognition of his long and invaluable support of the work on the EUROMECH Committee and Council, as Chairman of the EUROMECH Fluid Mechanics Conference Committee, and Chairman of several EUROMECH Colloquia.

## Fellowship Program of the EUROMECH - European Mechanics Society

In 2005 a EUROMECH - Fellowship Program was established by the Council of the European Mechanics Society to recognize members who have contributed significantly to the advancements of mechanics and related fields. This may be through their original research and publications, or their innovative contributions in the application of mechanics and technological developments, or through distinguished contribution to the discipline in other ways.

Election to the status Fellow of EUROMECH - European Mechanics Society will take place in the year of the appropriate EUROMECH Conference, EFMC or ESMC respectively, and is limited in total (fluids and solids together) to no more than one-half of one percent of the then current membership of the Society. In practical terms 5-6 fellows can be chosen every 2-3 years.

### Nomination conditions:

- The nomination is made by **two sponsors** who must be members of the Society;
- Successful nominees must be members of the Society;
- Each nomination packet must obtain a **completed Nomination Form, signed by the two sponsors, and no more than four Supporting Letters** (including the two from the sponsors).

### Nomination process:

- The nomination packet (nomination form and supporting letters) must be submitted before 15 January in the year of election to Fellow (the year of the respective EFMC or ESMC);
- Nominations will be reviewed before the end of February by the **EUROMECH Fellow Committee**;
- Final approval will be given by the **EUROMECH Council** during its meeting in the year of election to Fellow;
- Notification of newly elected Fellows will be made in May following the Council meeting;
- The Fellow award ceremony will take place during the EFMC or ESMC as appropriate.

Current members of the Council and members of the Prize Committee cannot be candidates for the fellowship status (Record of the EUROMECH Council meeting 2005).



So far 6 Fellows each for fluid and 3 for solid mechanics have been appointed and were honored at the 6<sup>th</sup> and 7<sup>th</sup> EUROMECH Fluid Mechanics and the 6<sup>th</sup> Solid Mechanics Conference, respectively. The names of the fellows are as follows:

Professor O. Allix (Cachan) 2006

Professor B. Eckhardt (Marburg) 2006

Professor N.A. Fleck (Cambridge) 2006

Professor J. Magnaudet (Toulouse) 2006

Professor P. Steinmann (Kaiserslautern) 2006

Professor M.G. Worster (Cambridge) 2006

Professor G.J. van Heijst (Eindhoven) 2008

Professor D.S. Henningson (Stockholm) 2008

## **The EUROMECH Fluid Mechanics and Solid Mechanics Prize**

After an appeal to members of the EUROMECH Society on the general idea of awarding EUROMECH Prizes (see NL 20 and NL 21, 2001) the EUROMECH Council agreed in 2002 that it would award Prizes to members of the mechanics community for their distinguished life-time contributions to mechanics. There would be the EUROMECH Fluid Mechanics and the Solid Mechanics Prize with a money prize of € 5000 each. They would be awarded every three years at the occasion of the EUROMECH Solid and Fluid Mechanics Conferences, for the first time in 2003, and the recipient of the Prize would be invited to give a Prize Lecture at the EUROMECH EFMC and the ESMC, respectively. It was suggested to award these prizes in order to increase the visibility of the Mechanics Community at large and to give recognition to distinguished scientists by their colleagues.

A nomination may be submitted by any member of the Mechanics Community. Eligible candidates should have undertaken a significant proportion of their scientific career in Europe. For each prize, a Prize Committee, with a Chair and four additional members shall be appointed by the EUROMECH Council for a period of three years. The five members may be reappointed once. The committee shall select a recipient from the nominations. The final decision is made by the EUROMECH Council.

The members of the first Fluid Mechanics Prize and Fellowship Committee appointed by the Council were: D. Abrahams (UK), H.H. Fernholz (Chair, Germany), P. Huerre (France), D. Lohse (The Netherlands) and W. Schröder (Germany).

The members of the first Solid Mechanics Prize and Fellowship Committee appointed by the Council were: A. Benallal (France), F. Goryacheva (Russia), A. Myrhe-Jensen (Denmark) and F.G. Rammerstorfer (Chair, Austria).

The first Fluid Mechanics Prize was awarded to Professor Henry Keith Moffatt from Cambridge (UK): “For his outstanding accomplishments and beautifully creative ideas in theoretical fluid mechanics which have had a lasting impact in the development of the field, in particular for his seminal contributions to the study of turbulence and magnetohydrodynamics with the identification of helicity



as key concept in the understanding of global flow features and the creation of the new field of topological fluid dynamics, for his equally impressive analyses of low Reynolds number flows with the introduction of the notions of Moffatt eddies in flows near a sharp corner and cusp singularities in free surface flows.”

The title of the Prize Lecture given at the 5<sup>th</sup> EFMC in Toulouse in 2003 was: “The Navier-Stokes equations and the finite-time singularity problem.”

The first Solid Mechanics Prize was awarded to Professor F. Ziegler from Vienna (Austria):

“For his outstanding contributions at the very frontier of research in a remarkably broad spectrum of solid mechanics; in particular for his work in wave propagation in layered and random media, vibrations of structures and stochastic dynamic processes; furthermore for the impact of his research on multifield problems including interactions between thermal, piezoelectric and mechanical fields, as well as fluid-structure interaction problems, and for his ingenious and outstanding results of lasting importance in engineering mechanics, e.g., in earthquake engineering and geomechanics.

The title of the Prize Lecture given at the 5<sup>th</sup> ESMC in Thessaloniki in 2003 was: “Strain controlled structural deformation and stress-states.”

**Acknowledgment:**

It is my great pleasure to thank all my colleagues in the Committee of EUROMECH and the Council of EMS with whom I have worked together during the past 40 years. In my various functions within the framework of EUROMECH I have experienced a spirit of encouragement and cooperation which is rare in academia. My sincere thanks go to the late chairmen George Batchelor and David Crighton as well as to my successor Patrick Huerre.

During my years with EUROMECH I have learned a lot with more fun than regrets and there was always support from my Secretary General, Miloslav Okrouhlik, and the successive “guardians” of the HFI-secretariat Ms. Annelore Behlow and Ms. Lilli Lindemann. I am grateful to Professors Rudolf Wille and Dietrich Küchemann who involved me in the affair of EUROMECH right from the start. Roger Kinns deserves special thanks for going through the text with a fine comb.

**Appendix 1,** by L. van Wijngaarden

**Appendix 2,** Photographs by M. Okrouhlik

## Recollections of an Euomech Old-Timer.

I became a member of the (then) Euomech Committee in 1977 and took part in its meetings for many years until 2001, also after it was transformed into the Euomech Council. First, as a regular member, then as member, representing IUTAM, and finally as Chairman of the Euomech Fluid Mechanics Conference Committee. My first meeting was in 1977 in Budapest, where Sandor Kaliszky was the host. In that time George Batchelor was the omnipresent chairman. In inviting you to serve on the Euomech Colloquium Committee he made you feel that you were about to take part in one of the most important enterprises in your scientific life. You could not do less than giving your very best. There were until 1990 no Euomech Conferences to discuss, only the proposals for Euomech Colloquia. There were typically some 25-30 proposals from which eventually, depending of how many Hans Fernholz could handle in his administration, 12-15 were selected after two full days of thorough discussion of each of the proposals. In many of the obituaries of George Batchelor the meticulous way is described in which he treated each proposal, bringing the meeting to an end well into late Saturday afternoon. The start was on Thursday evening when the Committee gathered in a restaurant for dinner, late proposals were handed out, and the agenda for the coming two days was settled.

After all this hard work, Saturday night was to relax. Most of the time the Committee was invited in their home by the host and his wife. I have the best recollections of excellent dinners and pleasant evenings. The atmosphere was always relaxed at those occasions and there was time for jokes and laughter. In the following I shall reminisce some moments that I remember well.

My second meeting was in Pisa in 1978 where Gianfranco Capriz was the host. In the evening he and his wife welcomed us in their beautiful house just outside Pisa. His wife is English and also an actress with an impressive way of speech. When we were all seated and enjoying our glass of wine she started to ask each of us where he came from and answered with some appropriate comment on our countries. When she came to George she asked “and where are you from?” and George said in a subdued way, even he!, “I am from Australia”, which is the truth. She looked at him sternly and said “but you don’t sound Australian at all”, because George spoke so British as British can be. Sometimes in the city where the Committee meeting took place, the host organized an official reception in a famous place. At such an occasion the Mayor or

other official person welcomed the Euomech Committee to his city and during the reception our chairman, George Batchelor, had to answer this with some gracious words. He acquitted himself always very well from this task but he did not particularly like it. So he was glad when he saw chance to ask somebody else to do this. Such an opportunity came when the Committee gathered in Milano. The host was Carlo Cercignani, who considered this, in his words, as an “onerous honour”. Nevertheless he had organized a reception by the Mayor in the beautiful castle of Milano. Committee members served for five years or so and every year new replacements arrived. That year, 1985, we had the pleasure of welcoming in our midst Mahir Sayir from Zürich. He is a polyglot and modestly declared that he spoke 9 languages, among which Italian. George thought, not having met Mahir before, that he boasted and said “That is very convenient, then I can ask you to give the speech to thank the Mayor“. Mahir agreed immediately and, may be to the surprise of George, gave an impromptu speech in perfect Italian.

As a result of the tough schedule of the meetings, Euomech Committee members did not get much chance to see something of the city of the meeting, except rare events as the reception in Milano. The only chance was the Thursday of arrival. Most members arrived in the afternoon and took the opportunity for a walk. So I remember meeting with five or six members at Arlanda Airport in Stockholm in 1986 for the meeting in Luleå, in the North of Sweden, where Bengt Lundberg was to be our host. After landing at the airport in Luleå we took the airport bus to the centre and the lady that was the bus driver liked this bunch of gentlemen so much that she made a detour and dropped us at the hotel. It was early May but still very cold. We decided to go together for a walk and after a while we met, to our surprise, George Batchelor who said that he was “walking off two days of meetings in Cambridge”. We decided to join him, or better to follow him. Eventually we came on the shore of the Botnic Gulf which with its large, still frozen, surface inspired such awe in Hans Fernholz that he said to George “Mister Chairman, this is as far as we follow you”. This was a wise statement because two days later all the ice had melted. In 1984 our future chairman David Crighton joined the Committee. He thought, on grounds of his extensive experience with meetings, that going through some 25 proposals could be done in half a day and wondered why the meeting was scheduled for two full days. He soon learned to appreciate the detailed way of dealing with every proposal and not before long he took a vigorous part in the discussions. David was an extremely busy man and always came to Committee meetings from somewhere, not from Leeds or (later) Cambridge. Nor did he go home after the

meeting but was always on his way to, sometimes, far away places. David worked an incredible number of hours a week, around the year. His only relaxation was music. He attended operas and concerts wherever he could, in his own ways. When the committee meeting was in Liverpool, in 1997, our host Norman Jones had made reservations for a number of us who expressed a wish to go to the opera *Rigoletto* by Verdi. David was not among that group, but when we entered the operahouse, who else was in one of the front rows than David, having found his own way of getting a ticket.

In 1984 the meeting took place in Berlin where Hans Fernholz invited us to his house. All Committee members stayed in hotel Exelsior and together we took the underground, the U-Bahn, to Hans. At the ticket office we learned that there was a considerable reduction for “Behinderten”, people with a physical handicap. All of a sudden committee members developed some handicap or other. Berliners must have looked in amazement, to say the least, at this bunch of limping and stumbling men!

In 1980 the Committee met in Darmstadt where Ernst Becker was our host. Ernst was a very influential scientist, both in Germany, where he was professor of fluid mechanics at the Technical University of Darmstadt, and internationally, among others as member of the Bureau of the International Union of Theoretical and Applied Mechanics (IUTAM). He died much too young, in 1984. In the evening, on our way to Ernst, we crossed the “Luisenplatz”, in the centre of Darmstadt. The people of Darmstadt are very proud of the Luisenplatz and someone compared it, with its obelisk like “Ludwigssaule”, with Trafalgar Square.

During the next days Gianfranco Capriz called it “Der Trafalgarischer Platz”.

A prominent member of the Euromech Committee in the period 1975-1985 was Wladek Fiszdon, from Warsaw. He did everything he could to involve the Eastern European countries in Euromech. These were under communist regime and in many of these countries scientists were not allowed to visit the West. For that reason many colloquia were organized in the East. I remember that Wladek, wherever a colloquium was organized, pleaded for cheap lodgings for students, for whom he always showed a warm heart.

In 1982 the committee meeting was in Bucarest, where Prof. Nicolae Cristescu was the host. He is a flamboyant man who at that time also had a connection with a university in the US, which was perhaps the reason why he could drive through Bucarest in a big white Mercedes.

He had good contacts with the authorities and George Batchelor thought to make this to good

use by pleading for more freedom for Rumanian scientists, to attend meetings in the West. The highest authority was Elena Petrescu wife of the dictator Nicolae Ceausescu. She declared herself to be a great scientist, in particular in chemistry, and chaired the highest scientific committees. If we could talk to her, that would be a help, perhaps. Our friend Cristescu tried to make an appointment but came back with the message that to obtain an interview with her it was needed that we should bring an official document, of the best calligraphy, and signed by our chairman and secretary, testifying our admiration for Elena Petrescu, the heroine of international science! George certainly did not want to go thus far and so we did not see Elena. In stead George, Wladek and I had a meeting with the Minister of Science and Education.

Let us return to the meetings of the Euromech Colloquium Committee and to the discussion of the proposals. After the thorough appraisal there was something as a vote, at least George (and later chairmen) asked everybody`s opinion about acceptance or non-acceptance. After a while George would know what a speaker`s words meant. Giulio Maier, a fine mechanistic from Milano, had a very gracious way of expressing a negative opinion. He would start to say that the subject was well-chosen and the proposer a good and wellknown scientist, but that perhaps the present timing was not the best and that perhaps with some more thinking an even better proposal could be made. Then we knew enough. The proposal should be rejected.

For George it was sometimes difficult to get a vote for rejection for a proposal which was to him obviously too weak. Some members from communist countries were so used to agreeing that to George`s question “what do you think, professor x? “, the answer was “I support this proposal”. When in such a case a tie was imminent, there was one last escape for George, and that was to ask “Professor Störakers, what do you think?”. Bertil Störakers, from Stockholm, would then start by saying that he was not the best authority on the subject, but now that his opinion was asked, he was willing to give it. And then followed a short but devastating judgment which completely killed the proposal.

Well, these were some recollections of meetings which I thoroughly enjoyed and of friends and colleagues which I liked and respected and with whom it was a pleasure to work together in the interest of mechanics.

Leen van Wijngaarden, September 2009.

## Appendix 2

Photographs by M. Okrouhlik (except figures 1-2-3-4)



Fig.1: R. Wille, D. Küchemann, H. Fernholz (waiting for the participants of EUROMECH Colloquium 1 in Berlin in April 1965)



Fig.2: Visit by G.K. Batchelor at R. Wille's Institute (HFI), 1969



Fig.3: Committee members 1983, Poitiers (from right to left: G.K. Batchelor, H.H. Fernholz, V. Brčić, P. Perzyna, E. Becker, F. Englund, C. Cercignani, B. Storakers, L. van Wyngaarden. The host Professor Lagarde took the photograph.



Fig.4: 1st European Turbulence Conference 1986, Lyon G. Comte-Bellot, H. Fernholz, J.C.R. Hunt



Fig.5: President H. Fernholz and Vice President D. Crighton, Officers Meeting, Berlin 1998



Fig.6: The Council members 1998, Udine (from left to right: F. Rammerstorfer, N. Jones, E. Hopfinger, E. van der Giessen, L. van Wijngaarden, H. H. Fernholz, T. Pedley, I. Goryacheva, D. G. Crighton, J. Engelbrecht, W. Schiehlen, J. Lemaitre, P. Blondeaux)



Fig.7: The Officers H. Fernholz, D. Crighton, M. Okrouhlik, E. Hopfinger, Council Meeting 1998, Udine



Fig.8: E.A. Müller 1998, Berlin



Fig.9: Council members in Cambridge 1999 (from left to right: L. van Wijngaarden, J. Lemaitre, W. Schiehlen, N. Jones, I. Goryacheva, P. Blondeaux, J. Engelbrecht)



Fig.10: P. Blondeaux, T.J. Pedley, J. Finley 1999 in Cambridge



Fig.11: Council Meeting, Cambridge 1999, P.A. Monkewitz, G.K. Batchelor







