



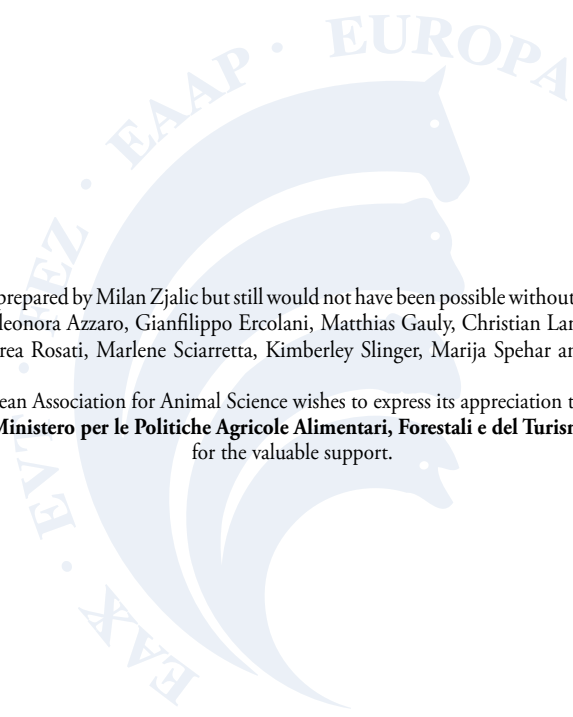
1999-2019

TWENTY YEARS OF HISTORY



**EAAP**

European Federation of Animal Science



This book was prepared by Milan Zjalic but still would not have been possible without the support and assistance of Eleonora Azzaro, Gianfilippo Ercolani, Matthias Gauly, Christian Lambertz, Federica Motterle, Andrea Rosati, Marlene Sciarretta, Kimberley Slinger, Marija Spehar and many others.

The European Association for Animal Science wishes to express its appreciation to the Italian **Ministero per le Politiche Agricole Alimentari, Forestali e del Turismo** for the valuable support.

*In 1999 John Hodges summarized the first 50 years of history for EAAP in a booklet. It was and it is an historical source, very useful to read about what EAAP experienced and achieved in the first 50 years of its life. We decided not to wait till 2049 to prepare the second "50 years of history". We thought that since 1999 many things have changed in EAAP that were worth to describe. So, it was easy to take the decision to produce a second booklet. More important was the question to whom we should ask to write the 20 years period!? No doubts that there is only one person to ask: Milan Zjalic.*

*He is probably the only one who has participated continuously to the EAAP life in this period. He has seen all developments and changes in EAAP in comparison with the changes of animal science and livestock industry sector. The work of Milan was then completed by the staff with important comments and suggestions. Some photographs were then added to help to recall memories of some people participating to the development of EAAP. We apologize since now for those who will not find their photos in the book. We apologize because the history of EAAP is above all the history of our members and many people. Without the commitments of everyone (staff and voluntaries) EAAP would simply do not exist. Many are the targets that we feel were achieved in this period. The first one is the much larger participation to EAAP life of young people.*

*The old image of EAAP as a network of elder people is completely transformed now when around 50% of participants are 40 years old or younger. The second achievement is the strengthening of the European feeling among animal scientists that is more evident now than ever before. Furthermore, many new activities were added, especially in the field of science dissemination. And many more targets were achieved that can be easily identified by those who have lived close to the life of our organization in the last 20 years and by those who enjoy EAAP services. Still many things can be done, and we have the duty to make EAAP to be fully prepared for future challenges.*

*Our network, with 35 country members and with almost 4000 individual members, requires it. With this booklet we want above all take this opportunity to thank everyone for their commitments without which the development and the successes of EAAP could not be possible. We also look at the youngest among us, hoping that this small book of history will be the right incentive to continue to offer their time and expertise to the European network of animal science. Working in and for an European association like EAAP pays back!*

Matthias Gauly  
(EAAP President)



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# I - Introductory Remarks

On 7 November 1949, representatives of twelve national organizations nominated as members of EAAP from nine European (Austria, Belgium, Denmark, France, Germany, Italy, Netherlands, Spain, and Switzerland) and three non-European countries (Iran, Morocco, and Tunisia) signed the document on the foundation of the European Association for Animal Production (EAAP). The Association was opened for the membership of ‘countries forming the European continent’ and for countries ‘economically oriented towards the Mediterranean’ (Article 1 of the EAAP Statute).

## 1. The first fifty years

On 7th August 1999, at the 50th Annual Meeting held in Zurich, Switzerland, EAAP celebrated its fiftieth anniversary. John Hodges<sup>1</sup> in his ‘Jubilee History of the European Association for Animal Production’<sup>2</sup> presented a comprehensive history of the EAAP with many interesting details on social and economic circumstances in which the Association was created, on its activities and programmes and on its future as seen from the end of the millennium perspective. A short summary of the “Jubilee History” presented in this document indicates the most important events related to establishment and the first fifty years of EAAP.

International cooperation in animal science began in 19<sup>th</sup> century when the application of modern science to farming started to have an effect. The roots of contemporary animal science go back to early discoveries in natural sciences such as applied chemistry (Justus Liebig) and genetics (Gregor Mendel), the establishment of private and public experimental and research stations, and the introduction of plant and animal productions as new disciplines in existing traditional academic institutions in the 19<sup>th</sup> century. “In this milieu of rapidly growing science and a new crop of scientists working with livestock, it is understandable that leaders and thinkers in livestock production realized that the science is not national but international” (J. Hodges, 1999).

The establishment of national herd books and pedigree breeders associations as well

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<sup>1</sup> In presenting his credentials for writing the Jubilee History, John Hodges stated that he has had contacts with EAAP for forty five of the past fifty years. In his long and rich professional career he taught animal science at the Cambridge University and at the University of British Columbia, Canada and worked for Milk Marketing Board in UK and for FAO in Rome. 1991 - 2005 he was the editor of the EAAP News.

<sup>2</sup> Published in the “Livestock Production Science” 60 (1999) pp 105-168 by Elsevier Science B.V.

as national animal production societies in many European countries was followed by the organization of the first international congress in animal science (Brussels, 1910). The second international congress was held in 1923 in Scheveningen, the Netherlands and the third in 1930 in Liege, Belgium.

The preparatory work undertaken by Dr. Engeler (Switzerland) for the fourth international congress held in August 1939 in Zurich, Switzerland, resulted in an agreement reached by a group of eminent animal scientists from several European countries to establish an international organization aimed at improving “animal production technically and economically and to ensure efficient production for the needs of mankind”. A small group under the chairmanship of A. Schmidt (Germany) prepared a draft of the Statute.

The basic elements of the present EAAP Statute stem from this draft. The Second World War started eighteen days later and the implementation of programmatic ideas of the draft were postponed to the post war period.

In October 1947, the first post war international animal production congress was held in Zurich. A total of 305 participants reviewed the livestock situation and agreed that there was a need for international cooperation to rebuild the sector and to coordinate the application of science to livestock in the post-war Europe. Participants decided to go ahead with the organization of an international non-governmental association composed of representative national units dealing with livestock production - scientists, producers and administrators.

The establishment of this association was strongly supported by a newly formed United Nations Food and Agriculture Organization - FAO. István Moskovits and Ralph Phillips, high officials of FAO, were active participants in all events leading to the establishment of EAAP - from the work of the Preparatory Committee to the final establishment of EAAP at the Fifth International Congress on Animal Production held in Paris on 8 November 1949. A few years later, EAAP obtained a special observer status in FAO. Strong links between FAO and EAAP have been maintained throughout history.

The first General Assembly approved the Statute, working program and the budget (based on annual membership fee of 3,500 Swiss Francs per Member<sup>3</sup>). It elected A. M. Leroy (France) President of the Association and appointed members of the Administrative Council<sup>4</sup> and Auditors<sup>5</sup>.

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<sup>3</sup> Equivalent to approximate value of SFR 29,400 or EUR 26,400 in January 2019

<sup>4</sup> Messrs Aschler (Austria), Engler (Switzerland), Jaspersen (Denmark), Leignes-Backhoven (Netherlands), Lievens (Belgium), Sola (Italy).

<sup>5</sup> Messrs Schmidt and Montero (Spain).

The Second World War ended four years before the establishment of EAAP but the majority of European countries, as well as other affected countries, were still recovering from consequences and losses caused by the war. Post-war recovery supported by adequate policy measures and technical progress coming from research gradually gave place to the impressive development of agricultural production. In this process the international cooperation in animal science played an important role.

The first and the most important topics placed on the agenda of the new association reflected the state of the art and the needs of the livestock sector in late forties of the past century: genetics of longevity, fecundity, meat production, performance test for horses, the relative value of horses and tractors and calculation of feed values. During the first decade of its existence the EAAP Periodic Study Theme Meetings dealt with topics representing new requirements in livestock production: use of hormones in animal production (1950), progeny testing in the breeding of farm animals (1951), the production and marketing of meat (1953), the influence of climate on animals and animal production (1954), animal production from grass (1955) and problems of productivity in animal production (1958).

The association established Study Commissions to cover research and coordination, nutrition and cattle, sheep and goat, pig and horse production. The Animal Genetics Commission was established in 1956, Management and Health in 1968 and Animal Physiology in 1996. In 1957 Commission Research and Coordination was dissolved in view of the fact that EAAP had no money to finance research.

EAAP continued to organize International Congresses of Animal Production up to 1971. Agenda of these congresses illustrates priorities in research programmes in European animal science. The sixth congress held in 1952 in Copenhagen included, for the first time in history of international cooperation in animal sciences, viewpoints on breeding methods - pure line or crossbreeding. The seventh congress (Madrid, 1956) dealt with heterosis, blood grouping in animal breeding and the quality of animal products. The series of congresses organized by EAAP included the ones held in Hamburg (1961), Edinburgh (1966) and Versailles (1971). The functions of international congresses were transferred to the EAAP Study Commissions while the global issues were taken up by the World Congress of Animal Production under the auspices of the World Association for Animal Production (WAAP).

A series of socio-economic factors and events such as post-war division of Europe into two blocks, restructuring of the west European economy through Marshall Plan, establishment of the Common Market (later the European Union), fall of

the Berlin wall, socioeconomic and political changes in the Central and Eastern Europe (including the re-unification of Germany) greatly influenced developments in animal production (e.g. differences in production systems: prevailing family farms in the West and large collective - state farms in the East) and animal science (e.g. application of quantitative genetics and progeny testing in animal breeding in the West versus Lysenko's theory in East). These events had also a bearing on the character of EAAP (pan-European or west European) and its membership (first full membership, then withdrawal of some Eastern Members countries and their return to membership in the nineties).

## **2. EAAP 1999-2019**

The present brochure prepared on the occasion of the 70<sup>th</sup> anniversary of the EAAP contains an overview of main achievements of EAAP in the past twenty years. The editors are animal scientists and active participants in many programmes carried out by EAAP and its technical and governing bodies. They also participate in other international and global events and activities. In preparing this document they adhered to the John Hodges view that "history, in contrast to a catalogue of events and activities, necessary involves interpretation". The description of events and activities presented in this brochure is based on official EAAP documents, while the responsibility for the interpretative views remains with editors.

During the past two decades, EAAP consolidated its role as the representative body of the animal science in Europe. It enlarged its mandate by including in the EAAP activities new disciplines and fields such as precision animal farming, insects, and aquaculture. The establishment of two new Study Commissions and of the system of Commissions' and Across Commissions Working Groups contributed to adjusting EAAP mission to new requirements and to respond to developments in animal sciences. The EAAP strengthened its position in the community of life sciences inter alia by acting as a forum for dialogue between different scientific sectors. Participation of industry representatives in the management of Scientific Commissions, industry sessions within Annual Meetings and the organization of industry workshops contributed to the quality of EAAP programs and to the interaction between the science and the wider sector as a whole.

EAAP has proved to be a reliable partner in the development and implementation of the EU projects. Journal ANIMAL, magazine Animal Frontiers, regular publication of Newsletter, EAAP website including those of the EU projects and the establishment of Animal Science Dissemination Team (ASSET), substantially

improved the dissemination of scientific information within scientific community and from the scientific community towards the public and industry. Scientific programs of Annual Meetings and other events strived to be in the vanguard of animal science often contributing also to improved practices in reply to consumers' and societal demands. Strategic alliances with regional and national associations of animal scientists and active participation in World Association for Animal Production (WAAP), in addition to providing complimentary sources of knowledge, testify the commitment of the EAAP to contribute to solving global problems such as hunger and malnutrition, global warming, protection of the environment and conservation of biodiversity. The establishment of the Young Scientists Club resulted in an increased participation of early career scientists in all activities thus guaranteeing the future of EAAP.

## II - Developments in Animal Industry 1999 - 2019

### 1. Developments

At the time of the establishment of EAAP, there were around 2.5 billion people in the world and around 400 million in Europe. In seventy years, world population tripled, while the European population grew by 85%. In 1949, the world produced 41 million tons of meat and Europe produced 9.65 million tons or 23.5% of the global production. Seventy years later, the global production of meat reached 330 million tons (Figure 1) or 8 times of level of production in 1949, while in Europe (Figure 2) the production of meat reached 62 million tons or 6 times more than in 1949. Increase in meat production was mainly due to the spectacular developments in production of pork and poultry meats (FAOSTAT; <http://www.fao.org/faostat/en/#data/QL>).

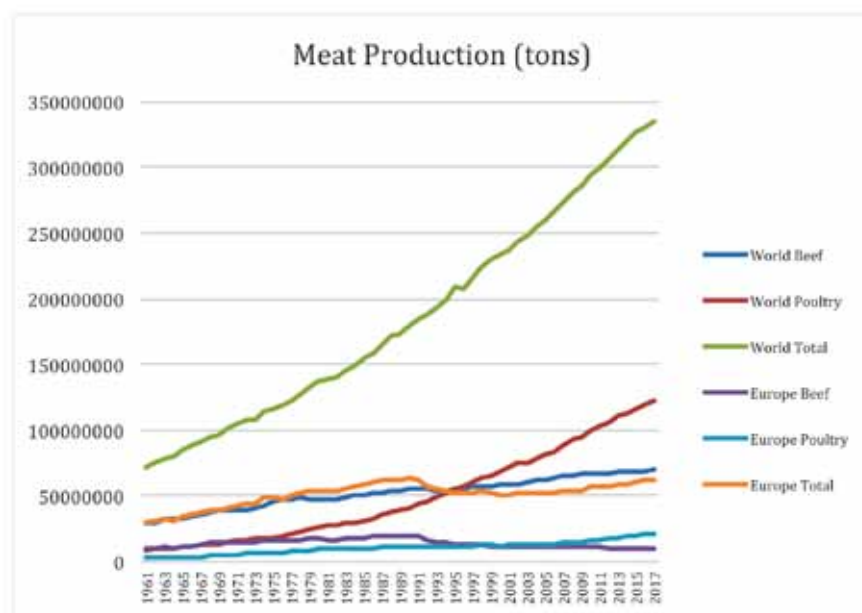


Figure 1. Meat Production 1961-2017

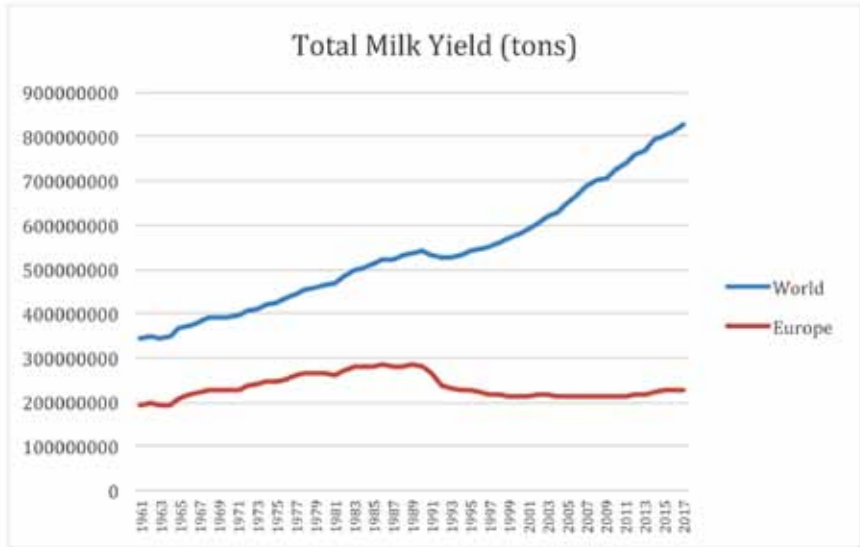


Figure 2. . Milk Production 1961-2017

At the beginning of the 21<sup>st</sup> century, livestock contributed 40% of the global agricultural output value and supported the livelihoods and food security for almost a billion people. Together with plant production and fisheries it provided food for seven billion people. Throughout the past two centuries, the agricultural production grew faster than the number of world population. For example, in 1961 the global average yield of cereals was a little less than 1.5 tons per hectare. It rose above 3.0 tons at the end of the twentieth century. Close to 90% of total crop production increase is the result of productivity increase as opposed to area expansion. Livestock production grew faster than the population numbers and it met both increase in demand and changes in nutritional habits caused by industrialization and urbanization.

Livestock is one of the fastest growing parts of the agricultural economy, driven by income growth and supported by technological and structural change. These include broad application of artificial insemination, genetic improvement through crossbreeding and hybridization, performance recording, progeny testing and genetic evaluation, information dissemination as well as development of technologies based on advances in life sciences and related disciplines. On the other hand, the livestock sector is also often associated with policy distortions and

market failures. It is often presented as a threat to the environment: it contributes less than 2% of global gross domestic product (GDP) but produces 18% of global greenhouse gas (GHG) emissions. It should be noted, however, that GDP underestimates the economic and social contribution of livestock as it does not capture the value of the numerous multifunctional contributions of livestock to livelihoods. Livestock grazing occupies 26% of the earth's ice-free land surface and the production of livestock feed uses 33% of agricultural cropland.

The increasing geographic concentration of livestock production means that the manure produced by animals often exceeds the absorptive capacity of the local area. However, the negative impacts of livestock on the environment can be mitigated by appropriate policies, research and technologies.

Rapid income growth and urbanization over the past seven decades, combined with underlying population growth, the globalization of supply chains for feed, genetic stock and other technology, are further transforming the structure of the sector. The sector is complex and differs according to location and species.

A growing divide is emerging: large-scale industrial systems are meeting the growth in demand for meat and other animal products in many developing countries whereas traditional pastoralists and smallholders, while often continuing to support local livelihoods and provide food security, risk marginalization.

Climate change is creating a new set of conditions in which the sector must operate as well as imposing additional constraints on it. At the global level and in particular in industrial and post-industrial societies, the environment, sustainability of production systems, animal welfare, food quality and safety, non-productive social roles and biodiversity of farm animals will continue to keep high place on the social, political and scientific agendas (FAO 2009).

Animal science greatly contributed to an increase in the availability of animal products, the higher productivity of animals, and development of intensive industrial animal farming systems.

During the past two decades, the global animal production continued to increase but with the lower rate than in the previous decades. The growth of animal production was attained mainly due to an increase in productivity: while the number of cattle and chickens increased by 10%, the production of cow's milk and chicken meat increased by 20%. The number of pigs increased by 20% while production of pig meat increased by 40%.

An increase in production influenced the reduction in the number of people suffering from hunger. However, the latest data indicate that after steadily declining over a decade, global hunger is on the rise again. Economic geography of animal



industry has changed tremendously. While animal production in developed countries of Oceania and the northern hemisphere in the period under the review has remained more or less at the same level, emerging economies have shown rapid growth in production. Surging demands for livestock products, vertically integrated livestock value chains and technological changes have led to major structural changes in livestock production.

There is a growing dichotomy between livestock kept by large numbers of smallholders and pastoralists, and large-scale commercial livestock production. While traditional livestock systems contribute to the livelihoods of 70% of the world's rural poor, increasing numbers of large-scale operations with sophisticated technology, mainly based on confined animals, externally-sourced feed and animal genetics, cater for the rapidly growing markets for meat, milk and eggs. Large-scale operators also fully benefit from efficiency gains through high level of inter-company coordination and cooperation. Midsize family farms risk being squeezed out of expanding formal markets, and smallholders and pastoralists are increasingly threatened by marginalization.

Europe's share of global animal production has continued to decrease: in twenty years the share in milk production has decreased from 46% to 32%, in cattle meat from 25% to 11% and in pig meat from 31% to 25%. In the last decades, in the EAAP area, like in other industrial and post-industrial societies, the social, political and scientific focus related to animal production has not been on the volume of production but on the environmental impact, sustainability of production systems, animal welfare, food quality and safety, non-productive social roles and biodiversity of farm animals.

These societal concerns together with issues related to economic efficiency and profitability of animal industry have been reflected in the orientation of animal science and research in the EAAP area. Benefits of the economic recovery after 2008-2014 crises have not been distributed evenly across the EAAP area. While in the major part of the EAAP Member countries stabilization of budgetary expenditures resulted in improvements in the funding of animal science and research, research institutions in some countries still suffer from insufficient funding which is reflected also in their limited participation in regional cooperation and in the EU funded projects. Lack of financial support for international cooperation has been the main reason for the withdrawal of North African countries from the EAAP membership.

In addition, civil disorders and wars in some countries of the EAAP area greatly affected animal production and research in these countries including destruction

of production and research facilities and victims among producers and researchers. Policy measures agreed within the European Union as Common Agricultural Policy (CAP) such as protection of local markets, price stability, availability of capital for investments, institutional and professional support including research and introduction of new technologies, as well as subsidies for key products resulted first in the attainment of the policy objectives established in the time of the creation of the EU. Examples of the policy objectives included self-sufficiency in food that can be produced in Member States, price and market stability and guaranteed income of food producers. Subsidies to producers and rapid development of new technologies soon lead to the surplus of some commodities and accompanying high costs of surplus disposal and control.

South Mediterranean countries ensured food security relying partly on import, partly on local production composed of traditional farming systems, and the growing role of intensive industrial production. Policy priorities in the South Mediterranean countries as well as in countries from the former Soviet Union also included an increase in local production based on better utilization of local resources and on development of intensive animal production.

## **III - EAAP in the beginning of the 21<sup>st</sup> century: orientation and the implementation of its mission**

### **1. The EAAP mission**

The aim of the EAAP, as declared in the first version of its Statutes, was 'promoting ever better economic and organizational conditions for animal production, inter alia through the active collaboration among national organizations that are Ordinary Members of the Association'. There were no changes in the aim of the EAAP throughout its history. Strategic documents approved by the General Assembly since 2004 define that the mission of the EAAP was 'to promote research, discussion, debate and dissemination of high quality and relevant animal science findings amongst the scientific communities, the livestock industry, civil society and groups with interests in livestock production (Strategic plan, [www.eaap.org](http://www.eaap.org)). Since its foundation the EAAP covered principal branches of animal production - cattle, pigs, horses, and sheep and goat. In 1949, the year of foundation of EAAP, international cooperation in poultry science was already well covered by the World Poultry Science Association established in 1921. The growing importance of maritime and inland aquaculture in fish production resulted in the establishment of the World Aquaculture Society (WAS) in 1969 and the European Aquaculture Society as the affiliated organization of WAS. Throughout its history the EAAP endeavored to share its responsibility with sister European and global associations in fields and disciplines of joint interest such as genetics, nutrition and environmental impact.

### **2. Global factors and societal demands**

Conditions under which the European livestock industry operated during the past two decades were greatly determined by some global factors such as climatic change, continuous population growth, increasing demand for animal products, as well as the acceleration of global data flow. Societal demands for food safety, protection of environment, quality of products, animal welfare and bioethics influenced adjustments in livestock technologies. The EAAP programs and activities were supportive to the rapid implementation of advances in animal biosciences acting as the clearing house for the exchange of ideas and scientific information. The quality of scientific programs at its events and its publication policy indirectly influenced orientation of animal science and research in Member countries.

### **3. Events and factors that affected European livestock industry and EAAP activities**

Major events that affected livestock industry in the region that had a bearing on the EAAP activities in the period under the review were: rapid implementation of advances in animal sciences, precision farming and increased use of information technologies in animal production, new social demands and new priorities in research, emphasis on non-productive function of livestock, transition from planned to market economy in Central and Eastern Europe, changes in the political map of Europe and establishment of several new independent states, enlargement of the European Union, shifts in emphasis in agricultural policies in EU, the BSE crisis, abolishment of milk quotas, ban of import of agricultural products from EU to Russian Federation, the exit of the United Kingdom from the European Union and changes in the farm structure in Europe.

#### **3.1 Implementation of advances in animal sciences**

During the period under the review research results, such as DNA analysis, were rapidly applied in animal industry. These included, inter alia, development and utilization of genomic selection for quantitative and functional traits based on SNP (Single Nucleotide Polymorphism) data and interaction between genotype and environment. EAAP Annual Meetings and other events were place for presentation of new discoveries and analysis of new technologies. For example, two sessions of the 55th Annual Meeting held in 2005 dealt with the genomics of lactation and genetics of disease resistance. The EAAP system of dissemination of information focused on cutting edge discoveries (journal ANIMAL, files from Annual Meetings, web sites and newsletters of the EU funded projects) and on informing public and policy makers on developments in animal science and animal industry (magazine Animal Frontiers, website, FlashENews).

#### **3.2 Use of information technologies**

Information technologies have become important tools in herd and farm management, health protection, animal identification, animal recording and genetic evaluation. Recognizing the growing implementation of principles of precision livestock farming (PLF) the EAAP established, in 2017, the special Study Commission to deal with these issues.

### **3.3 Social demands**

As mentioned above, the EAAP area in general, and in particular its European part, has reached self-sufficiency in animal products by the end of the past century. Consumers had started to pay more attention to the quality and safety of food of animal origin and on ways it was produced. In addition, the public and administration, through standards and regulations, request control and reduction of the impact of animal production on the environment. These issues were well covered by EAAP actions. For example, the 2008 Annual Meeting dealt with nutrition and product quality, the 2010 Annual Meeting with societal demands and policy instruments in relation to animal welfare and food production. Breeding and management for meat and product quality was in the focus of the 2012 Annual Meeting.

### **3.4 Non-productive functions of livestock**

Research results on non-productive functions of livestock such as the role of livestock in rural development, livestock and tourism, cultural values and environmental services were on the agenda of many EAAP events, in particular in the symposia organized by the Mediterranean Working Group.

### **3.5 Transition from centrally planned to market economy in CEEC**

In the early 90's, the EAAP reacted to effects of transition from centrally planned to market economy systems on animal sector in Central and Eastern European countries (CEEC) and the establishment of new independent states by forming the first the Contact Group and then the Working Group which monitored developments and suggested activities and programs in support of animal industry in these countries. The Council decided that new independent states established within the boundaries of the former EAAP Members (USSR, Yugoslavia, Czechoslovakia) were eligible for the EAAP membership as successors of former members.

### **3.6 The enlargement of the European Union**

The enlargement of the European Union in 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia), 2007 (Bulgaria and Romania) and 2013 (Croatia) was one of important factors that influenced developments in the animal industry in the EAAP area. The increased

number of members of the EAAP which are member states of the EU opened new possibilities for cooperation in research and in other sectors. Based on experience and interests of its Members, EAAP supported the preparation of the livestock sector in seven CEEC in their accession to the European Union through activities of the Contact Group and the preparation and implementation of a project BABROC funded by the European Union.



*A. Aumaitre*

### **3.7 Revision of the EU Common Agricultural Policy (CAP)**

The revised CAP approved at the end of the last century focused on ensuring consumers' protection and food quality and safety, farm income and rural development, protection of the environment, animal welfare and biodiversity. Similar economic and policy developments and changes took place in other West

European countries, Turkey and in the EU present and potential EU candidate countries of the South East Europe. These changes greatly influenced EAAP programs and activities as can be seen from a short inventory of research themes and issues discussed at EAAP Annual Meetings, workshops and symposia and presented in the EAAP publications. Economic and social consequences of the changes in the CAP and the impact on livestock production were discussed at the annual meetings in Uppsala and Dublin. The EAAP Working Group Cattle Network prepared a study on the impact of revised CAP on beef production and submitted it to the EU Commission as a contribution to the public debate on announced changes.

### **3.8 Bovine Spongiform Encephalitis (BSE)**

The Bovine Spongiform Encephalitis (BSE) crisis affected the cattle sector in Europe and involved many other sectors of the society. At an early stage in the BSE crisis, EAAP has issued a special publication on the disease and its implications in 1994. The BSE issue for the first time appeared on the agenda of the 2001 EAAP Annual Meeting in the context of the main theme of the meeting related to the public perception of animal products. In 2001, the EAAP commissioned a group of fourteen experts to review the causes and consequences of crisis. In 2003, the Working Group lead by Patrick Cunningham produced a report 'After BSE - a future for the European livestock sector' (EAAP publication No. 108). The report also presented ideas on how the European livestock sector can respond to the expectations of its customers and producers themselves.

### **3.9 Animal Farms structure**

Structural changes such as a decline in the number of animal farms, increase in farm size and in productivity, continued throughout the area but with particular emphasis in the southern and eastern parts of the EAAP area. In the EU, the farm numbers were continuously decreasing. In accordance with the Eurostat, the average annual rate of decline between 2005 and 2013 stood at 2% for the EU-27, with greater losses in the countries that joined the EU in 2004 and 2007 (EU-N12: -2.7% per year) than in the older Member States (EU-15: -0.9% per year). Average physical farm size in the EU grew by 4% per year between 2005 and 2013. Annual growth rates in the EU-N13 (+4.5% per year) were higher than in the EU-15 (+3.5% per year). The EU-28's livestock herd was 130 million livestock units

(LSU) in 2013. The total number of livestock in the EU-28 decreased between 2007 and 2013 by 6.6 million LSU, which is an equivalent to a fall of 4.8 %.

### **3.10 Milk Quotas**

The end of milk quotas in the EU in 2015 influenced the closing of the smallest dairy farms, coupled with an increase in the size of the large ones and geographic re-distribution of milk production: in 10 Member States the dairy herd increased by 8% in three years, while it decreased by 3.1% in 18 other ones.

### **3.11 Ban of export to Russia**

In 2014 the Russian Federation introduced a ban on the importation of agricultural products from EU. This measure affected EU exporters of animal products and caused slight decline in production and market instability in some EU member states. In 2015 the European Commission agreed a support package to help affected farmers, in particular meat and milk producers. The package was extended up to 2018.

### **3.12 Brexit**

Political changes within the European Union - exit of the United Kingdom from the EU - did not have a direct impact on cooperation in the field of animal science and the important role being played by the British Society of Animal Science (BSAS) in the EAAP activities. The United Kingdom will leave the EU through a transition period, during which little would change in terms of the country's scientific relationship with the EU.

## **4. Implementation of the EAAP mission**

In the period under the review, the implementation of the EAAP mission has been carried out by around a thousand scientists who took part in the EAAP events (Annual Meetings, symposia, workshops and EU projects). Every year about three thousand authors produced over 850 scientific papers presented at Annual Meetings and other scientific gatherings published in the journal *ANIMAL* and other EAAP publications. About one hundred scientists volunteered as members of Working Groups, management boards of Study Commissions and the EAAP Council.

Themes of annual and other scientific events taking place in the first two - three



decades of the existence of the EAAP clearly reflected basic social needs and preoccupations of researchers: the practical use of hormones in animal production (1950), production and marketing of meat (1953), and animal production from grass (1955). Reconstruction of agricultural production and provision of food had the highest social and political priority.

EAAP programs and activities, as well as themes of Annual Meetings, indicate continuous adjustment to new conditions and requirements. More attention was given to: animal management, integrated use of natural resources with emphasis on rural development, eco-tourism, value-added products, sustainable farming, product quality, biodiversity and sustainable utilization of farm animal genetic resources.

Early in its history, recognizing regional differences and priorities, the EAAP Council established the Mediterranean Working Group whose tasks were to monitor developments in animal production in this geographic area, to propose themes to Study commissions and to organize symposia which would cover specific problems of the Mediterranean animal sector. In the nineties of the last century, similar tasks were attributed to the East European Working Group for present and potential EAAP member countries from Eastern Europe and Central Asia.



*Solms-Lich*

## 4.1 Strategic plan

Discussion on the need for adoption of long-term strategic objectives and on means how to attain them started well before 2000. The first attempt to determine practical measures in the implementation of the EAAP mission was undertaken at the 44th General Assembly which approved the general plan for 2001.

The idea further evolved and in 2003 the Secretary General informed the 47th General Assembly on the Council's intention to create a three and a five-year strategic plan. The Secretariat, with inputs from A. Aumaitre, C. Thomas, and J. Flanagan, prepared a questionnaire, which was sent to Member Organizations in early 2004. Replies to the questionnaire and comments received served for the preparation of the strategic plan 2004-2007.

The 117th meeting of the Council reviewed the draft of the 2008 - 2012 strategic plan prepared by an ad hoc working group (D. Gabiña, K. Oldenbroek and A. Rosati) and submitted it to the 51st General Assembly (Dublin, 2007). The final version was approved by the 52nd General Assembly (Vilnius 2008). The plan set the EAAP vision and objectives related to programs of Annual Meetings, relations with the EU and to anchoring EAAP in national member organizations and institutions. It emphasized the need for improved relations with industry and donors. It was agreed that each of the short-term plans should aim towards the long-term vision and be consistent with overall goals. Although, the list proposed was not intended to be exhaustive, it rather identified the most important and higher profile corporate objectives. As the General Assembly sets the goals and objectives, it would be the responsibility of the Council to coordinate and allocate resources within the budget to achieve them.

The Strategic Plan served as a base for the approval of annual objectives. Implementation of the strategic plan was regularly monitored by the Council and reported to the General Assembly. In 2010, the President of EAAP informed the General Assembly on first results 'in adjusting EAAP to new conditions – the global economic situation, stagnation and financial crisis in some countries and deterioration of the economic position of the animal industry in the EAAP area. All these factors had a negative impact on research, science and academic institutions, and consequently, on international cooperation among researchers and institutions. In 2011, the President reported to the General Assembly that 'almost all strategic objectives have been attained such as industry participation, agreement with a professional conference organizer, individual membership, contacts with country representatives, and strategic alliances with other organizations. Dissemination of

information was strengthened by new initiatives, such as improvements in the website, free access to the EAAP scientific series, more frequent publications of the newsletter and launching of the new magazine *Animal Frontiers* in cooperation with ASAS'. In 2015 the General Assembly agreed that the strategic plan and annual objectives should contain quantifiable criteria.

The 2012 - 2016 Strategic Plan was adopted by the General Assembly in Bratislava in 2012. In line with this plan, the Council and the General Assembly give the mission to the 'forward looking group' to propose after consulting the EAAP bodies, especially the Scientific Committee, the Study Commissions, the Working Groups and the Council, a robust structure and methodology for organizing the future scientific affairs of EAAP to derive a structure that would:

- Efficiently organize the scientific program of the Annual Meeting by selecting properly the session topics, by selecting chairs and invited speakers and to ensure compatibility and coordination with the annual meeting
- Facilitate the inclusion of all relevant fields of animal science, especially 'hot topics' and emerging subjects
- Give to every 'member' scientist a real possibility to participate to the groups by consultation, appropriate committee turnover and appointment
- Facilitate involvement of industry representatives and stakeholders into the groups
- Contribute to the future scientific strategy of the EAAP
- Provide a strong link with Council to allow them to make informed decisions on the scientific strategy of EAAP.

The Council nominated C. Thomas (Chair), G. Hartnell, D. Gabiña, and M. Bonneau as members of the Group. The report of the Group was endorsed by the Council and the General Assembly in 2013 and implemented in the organization of the 2013 Annual Meeting in Nantes.

## **5. From Association for Animal Production to Federation of Animal Science**

The Council at its 105<sup>th</sup> meeting held in Antalya, Turkey, in 2005, discussed the name and logo of EAAP and decided that the name EAAP with the under script in English 'European Federation of Animal Science' should become a part of the logo. It agreed that this change should be included in the Statute and By-laws.

The official name in German, French and Italian remained unchanged. Reasons for the change were found in changes in the regional institutional setting. Originally,

the EAAP membership was opened to national bodies dealing with ‘economic conditions for animal production through active collaboration among national organizations’. With the enlargement of the European Union the majority of EAAP Members from Europe got the new forum for dealing with ‘conditions for animal production’ within the CAP. National associations of producers established specific forms of collaboration at the EU level (COPA - COGECA) and for negotiations with the European Commission.

In 2011, the EAAP established the partnership with the Animal Task Force – a European public – private platform of research, farmers’ and industry organizations which took up tasks of policy dialogue with the European Commission. In the majority of member countries, ministries of agriculture were replaced by research institutions and associations of animal scientists as national representative members of EAAP.

In addition, the change of the name followed the shift in emphasis in the Common Agricultural Policy of the European Union from increase in volume and quantity of production to quality, food safety, environmental aspects and animal welfare.



*J. Flanagan*

## **6. Membership**

The EAAP Statutes provided that ‘national organizations operating in the animal production field, in the case of countries not forming part of the European continent that are economically oriented towards the Mediterranean may be admitted under the same conditions as those applying to national organizations in European countries’. Therefore, the EAAP area comprises European and the Mediterranean countries, Russian Federation, Ukraine, Belarus, Caucasian countries, Central Asia, and Iran as a historical founder of the Association. Such a large area extending from polar zones to sub-tropical conditions and from Pacific to Atlantic is also characterized by great diversity of agro-climatic conditions, animal production systems and socio-economic conditions affecting animal production and research agendas and priorities.

The organization did not succeed in maintaining membership of some European countries and countries from the south bank of the Mediterranean, as well as activating the potential members from the Eastern part of the EAAP area. Few small countries where animal science is not the national priority have been suffering budget cuts due to the global economic crisis, and they were struggling to remain part of EAAP family. The Council closely monitored the situation and tried to find a way to maintain the membership.

Some institutional members of EAAP actively supported registration of animal scientists as individual members of EAAP, while in some cases the lack of support resulted in relatively small number of registered individual members. The legal requirements for personal data protection impacted upon attempts to increase the number of individual members.

### **6.1 Country membership**

In the period under the review, the statutory provisions regarding membership of the Association have been strictly observed. New Members that joined the Association were representative of national organizations that bring together qualified producers, members of the teaching profession, scientists and members of government departments having responsibilities in the animal production field. Like in the past, the Association accorded only one ordinary membership per country (Article 3 of the EAAP Statute). Serbia joined EAAP membership in 2005 and Malta in 2006. Morocco re-joined the Association in 2012, while Bulgaria joined EAAP in 2018.

Although the number of Members of the Association in 2018 was equal to the one in 2000, there were significant changes caused mainly by financial problems of Members from the south Mediterranean region and of those from the former Soviet Union. There were also internal changes in representation of countries in EAAP - in 2008 Cukurova University replaced Ankara University as the Turkish member of EAAP.

In 2003 the 103<sup>rd</sup> Session of the Council agreed that all countries of the former Soviet Union were eligible for re-joining the Association, on the basis of the previous membership of the Soviet Union. Latvia became a member in 2003, Georgia in 2004, and Belarus in 2004. In 2001, Prince Solms, president of EAAP, reported on the negotiations with Russia over the non-payment of its membership fees. After more correspondence he had visited Russia with Dr. Meyn. While his discussions appeared to be proceeding well there had been no practical results. It was agreed that he would continue to correspond with Deputy Minister and also look for eventual further new channels of approach. Council would re-consider progress with this important member country at its mid-term meeting in 2002 and take a final decision. The outcome of all of these contacts was the decision to cancel the membership of the Russian Federation and write off accumulated debt for unpaid membership fees.

Jordan withdrew from the membership in 2006 due to the four-year arrears in the payment of membership fees. Membership of Egypt and Morocco has been frozen from 01 January 2008 due to failure to meet financial obligations. Both countries were suspended from membership in 2009 and membership of Georgia and Belarus were frozen. Georgia was suspended from membership in 2010. So, five new Members joined the Association among which two (Georgia and Belarus) withdrew from the membership a few years after the admission. Three old Members (Jordan, Egypt and Morocco) withdrew from membership in 2006 and 2008. Hungary withdrew from membership in 2018.

The state of the EAAP membership was a regular item on the agenda of the EAAP Council. The Council identified several reasons for the fact that 70 years after its foundation the EAAP institutional country membership was limited to the European continent (plus Tunisia). They included budgetary austerity and reduction in funding of national institutions, along with a lack of contacts with decision makers at the national levels. In the minutes of one of the Council meetings one can find that 'there was some discussion of the idea that new members should only be invited if their animal production systems were comparable with those in existing member countries, but no decision was taken'. At the 155th meeting

(Rome, 2015) the Council 'agreed that in a number of countries the membership situation in addition to the local institutional setting greatly depends on dedicated and active individuals capable of finding solution in local conditions for provision of funds for membership fees and for participation in EAAP activities. In this respect, it is important to maintain personal contacts with individual scientists in particular with those from North African countries. The application of the system of differentiated fees for North African countries - a part could remain at the disposal of the Member to finance activities within EAAP - should be kept in mind'.



*Central-Eastern European group of scientists at Annual Meeting*

The Council in 2016 (156<sup>th</sup> meeting) agreed to facilitate country membership for North Africa and East Europe by offering them to join EAAP as members having the right to participate in all EAAP activities (except in deciding on Statute and budget) in the period of no more than three years without paying the membership fee. In this period, they would have to create a structure to support full and regular membership comprising active participation in EAAP activities and payment of the membership fee. The state of supportive structure would be monitored and evaluated by the Council on yearly basis. In case of unsatisfactory developments, the Council may abolish the facility. The facility was offered to Algeria, Morocco and Ukraine. Ukraine accepted the facility and regularly reported on the implementation.

**Table 1. Member Countries and member organizations of the EAAP**

<b>Member Country</b>	<b>Member organizations of the EAAP</b>
Albania	Ministry of Agriculture and Food, Animal Production Service
Austria	Bundesministerium Nachhaltigkeit und Tourismus
Belgium	Ministry of Flemish Community, Agriculture and Fisheries
Bulgaria	United Bulgarian Livestock Farmers
Croatia	Ministry of Agriculture
Cyprus	Ministry of Agriculture, Natural Resources and Environment, Agricultural Research Institute
Czech Republic	Institute of Animal Science
Denmark	Aarhus University, Faculty of Science and Technology
Estonia	Veterinary and Food Board
Finland	University of Helsinki
France	Association Française de Zootechnie AgroParisTech
Germany	Deutsche Gesellschaft für Züchtungskunde e.V.
Greece	Hellenic Society of Animal Production
Iceland	The Iceland Agricultural Advisory Centre
Ireland	Dept. of Agriculture, Food and Forestry
Israel	Israel Dairy Board (IDB)
Italy	Comitato Italiano della Federazione Europea di Zootechnia, c/o Associazione Italiana Allevatori
Lebanon	Lebanese Agricultural Research Institute (LARI)
Latvia	Ministry of Agriculture, Animal Agriculture department, Livestock production and pedigree division
Lithuania	State Animal Breeding Supervision Service, Ministry of Agriculture
Luxembourg	Administration des Services Techniques de l'Agriculture ASTA
Norway	The Norwegian Committee of EAAP
Poland	National Animal Breeding Centre
Portugal	Ministerio Agricultura, DGV, Serviços Administração
Romania	Ministry of Agriculture, Forests and Rural Development
Serbia	Ministry of Agriculture and Environmental Protection
Slovak Republic	Research Institute of Animal Production
Slovenia	University of Ljubljana, Biotechnical Faculty, Zootechnical Department
Spain	Ministerio de Agricultura, Pesca y Alimentación; Dirección General de Ganadería; Subdirección General de Medios de Producción Ganaderos
Sweden	Swedish national committee of EAAP (Växa Sverige, Swedish University of Agricultural Sciences and the Swedish Board of Agriculture)
Switzerland	Swiss Association for Animal Sciences
The Netherlands	The Animal Sciences Group (ASG) of Wageningen University and Research Centre
Tunisia	Ministère de l'Agriculture, Office de l'Élevage et des Pâturages
Ukraine	National Association of Milk Producers
United Kingdom	British Society of Animal Science



## **6.2 Individual membership**

The question of individual versus institutional membership has been a longstanding issue in informal discussions among scientists and professionals involved in the EAAP activities. It was placed on the agenda of the Council only in 2003 when it was agreed that the introduction of the new type of membership would require changes in the EAAP Statute. G. Pollott as representative of BSAS of the UK, expressed their concern about the new scheme. If not carefully planned, it could seriously affect BSAS membership and survival. The President assured that the EAAP Council was aware of this possibility and therefore joint discussion will be carried out between EAAP and BSAS before settling the EAAP individual membership fee and benefit levels.

In 2006, the General Assembly approved amendments to the Statute which included the provision that the fellowship of the Association may be accorded to individuals active in the animal production field under conditions set by the Council. In 2017, the Secretariat sent to all individual members the Data Protection Notice and the Consent Form to be filled and signed by every individual member and participants in the EAAP activities who would allow the processing of their personal data for the purposes described in the Data Protection Notice. In December 2018, there were 3570 individual members coming from EAAP Member countries and 15 countries outside the EAAP area.

### **6.2.1 Outside EAAP area**

In 2009, the EAAP Council (126<sup>th</sup> session, 23 August 2009, Barcelona) on the basis of statutory provision regarding the fellowship of the Association, requested the Secretariat to prepare changes in the Internal Regulations so as to make it possible for animal scientists living outside the EAAP to join EAAP as individual members. The rights of individual members from outside the EAAP area include free access to ANIMAL journal, participation to scientific sessions and workshops, including the EAAP Annual Meetings, with discounted registration fees, access to Restricted Site on the EAAP web site and the possibility to publish research results in the EAAP publications.

### **6.2.2 In EAAP Member Countries and the EAAP area**

Scientists from the EAAP Member Countries and the EAAP area willing to become individual members were entitled to the free electronic access to the journal

ANIMAL by request and payment of an amount determined by the Council. Young (less than 32 years old) and retired scientists are entitled to 50% reduction to the cost of electronic access to the journal ANIMAL.

### **6.3 Honorary membership**

The Honorary Membership may be accorded to individuals long active in the animal production field and to those otherwise meriting particular recognition from the Association. At the time of the Jubilee Celebration in 1999 K. Kalay, former Secretary General, A. Ross and E.P. Cunningham, former EAAP Presidents, were Honorary Members. In 2000, the General Assembly of EAAP accorded Honorary Membership to A. Nardone, former President of EAAP and in 2003 to J. Boyazoglu, former Executive Vice President.

In spring 2019 at its 171<sup>st</sup> meeting the Council agreed to accord Honorary Membership to former presidents of EAAP and agreed that the number of Honorary Members should be limited to former presidents and three other persons.

## 7. Structure of the EAAP and activities of technical and governing bodies

During the past twenty years the structure of the EAAP has been adjusted to new demands and challenges. These adjustments included:

- new composition and new tasks of Study Commissions
- establishment of three new Study Commissions
- transforming the Council Working Groups into Across Commissions Working Groups
- forming new Across Commissions Working Groups and linking their programs with programs of Study Commissions
- definition of functions of Commissions' Working Groups.



*A. Aumaitre*

### 7.1 General Assembly

Representatives of member organizations met regularly at the General Assembly held on the occasion of the Annual Meetings<sup>6</sup>.

Each General Assembly received reports submitted by presidents, secretary

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<sup>6</sup> The first five General Assemblies were held every three years (1st in Paris 1949, 2nd in Copenhagen 1952, 3<sup>rd</sup> in Reading 1955, 4th in Brussels 1958 and the 5<sup>th</sup> in Hamburg 1961).

general, and auditors and approved budgets and financial statements. Since 2012 representatives of member organizations met with the President and the Secretary General prior to the General Assembly to receive additional information on topics placed on the agenda by the EAAP Council. Up to 2002, the standard agenda of the General Assembly included presentations of the Leroy Fellowship and Distinguished Service awards.

In 2000, the Council noted that the General Assembly had proved too long (in particular the award section) and had given too little information about the Association and Commissions' activities and was not attractive to young scientists. The discussion on the structure and agenda of the General Assembly resulted in the decision to include the presentation of awards in the opening ceremony. In such a way delegates of Member Organizations get more time to discuss policy issues and to comment on the President's and Secretary General Reports, while the EAAP awards became more visible and presented to the larger audience attending the opening ceremony.

General Assemblies held in 2006 approved the strategic plan and assemblies held from 2007 onwards discussed the implementation of the strategic plans and approved objectives to be attained in the following year.

Amendments to the Statute related to fellowship of Association and to the right to the Council to accord the Leroy Fellowship and the Distinguished Service Award were approved by the Extraordinary General Assembly held on 19 September 2006 in Antalya, Turkey.

Up to 2003 General Assemblies were held in four official languages - English, French, German and Italian. Simultaneous translation was abolished in 2014 (decision of the 103<sup>rd</sup> meeting of the Council) following consultations with Members who agreed to use English as the official language of the EAAP.

This decision reduced costs of and contributed to the more efficient work of future General Assemblies.

## **7.2 Presidents of EAAP**

Five Presidents who served during the past twenty years were elected by the General Assembly, due to their international reputation as scientists and their specific experience and knowledge as participants in EAAP activities.

Four of them before their election were members of the EAAP Council, one was President of a Study Commission, one was a Vice President Science and one was the manager of a large national research organization.



*A. Rosati and L. Fésüs*

**Table 2. Presidents of EAAP**

<b>Presidents of EAAP</b>	<b>Year</b>
Furst Zu Solms-Lich	1996 - 2000
Aimé Aumaitre	2000 – 2004
Jim Flanagan	2004 - 2008
Kris Sejrzen	2008 - 2012
Philippe Chemineau	2012 - 2016
Matthias Gauly	2016 -

Two Vice Presidents elected from among members of the Council assisted Presidents in discharging their duties. One of Vice Presidents presided the Scientific Committee and one the Ways and Means Committee. The term of office of each Vice President expired at the end of their terms as members of the Council. The following persons acted as Vice Presidents during the past twenty years: Jim Flanagan, Eugene Wagner, Cledwyn Thomas, Ernst Kalm, Michel Bonneau, George Zervas, Dunixi Gabiña, László Fésüs, Odd Vangen, Zdravko Barac , Mike Coffey, Johan De Boever, Jeanne Bormann and Johann Soelkner.



*K. Sejrson*

### **7.3 Council**

During the 1999 - 2012 period, the EAAP Council met on the occasion of the Annual Meeting and in spring. Since 2012 the Council has met three times each year, once in spring, once in fall and during the Annual Meetings. Joint meetings with the Scientific Committee were held on the occasion of spring meetings of the Council. Since the establishment of the EAAP, the Council had the option to elect a Board composed of a President, two Vice Presidents and the Secretary General. In 2014, this option was abolished so as to improve efficiency of the work of the Council. In the period under the review, prerogatives and statutory duties of the Council have been slightly changed by the transfer of the right to accord awards, but its basic functions remained within provisions of the Statute to manage the day-to-day business of the Association, to prepare General Assemblies and implement their decisions, to monitor and guide the work of Commissions and Working Group, to draw reports on activities, budgets and financial statements. It regularly received reports of its auxiliary bodies –Scientific and Ways and Means committees. In addition to its obligations related to routine tasks and day to day management, the Council prepared proposals for the approval by the General Assembly that

had long term implications, such as those for amendments to the Statute and By-laws and for the establishment of the system of medium-term strategic and annual planning. In 2012, the Council (140<sup>th</sup> meeting) reviewed contacts with Members and agreed that it should be strengthened through improved contacts between Council members and the Secretariat with the representatives of Member Countries. Country representatives should receive summaries of decisions of the Council and the General Assembly, as well as the list of individual members with the objective to apply the Council decisions at the national level and to stimulate the participation of national animal science communities.

In 2017, members of the Council agreed that each of them would monitor specific activities within the mandate of the Council and provide support and advice in the implementation of the EAAP programs and the Strategic Plan. In addition, each member took up responsibility of maintaining contacts with institutional members from respective electoral groupings and ensures that EAAP Members are adequately informed on Council decisions.

The establishment of ANIMAL as a new official journal of the Association, new publication policy, strengthened international cooperation and new relations with the European Union including participation of the Association in the EU funded research projects and action programmes were among policy decisions that have long term impact on the profile and the role of EAAP. It regularly monitored the financial position of the Association and decided on the improvements in the presentation of financial reports to ensure transparency and in-sight of the EAAP Members into the management of financial resources.



*Z. Barac and A. Baldi*

**Table 3. Members of the Council from 2000 to 2019**

Mona Abboud	Salah Galal	Bruno Ronchi
Antonella Baldi	Matthias Gauly	Giuseppe Rossi
Mohamed Täieb Belhadj	Horia Grosu	Lotta Rydhmer
Giuseppe Bertoni	Georgia Hadjipavlou	Daniel Sauvant
Maurice Bichard	Andreas Hofer	Martin Scholten
Giovanni Bittante	Jaana Kiljunen	Věra Skřivanová
Jeanne Bormann	Hakan Kutlu	Johann Soelkner
John Carty	Kristina Landsverk	Bruno Stefanon
Isabel Casasús	Mark Maguire	Arūnas Svitojus
Alexey V. Cherekaev	Veronika Maurer	Cledwyn Thomas
Mike Coffey	Štefan Mihina	Ilie Van
Daniel de Brabander	Jacques Morel	Mogens Vestergaard
Sandra Edwards	Roman Niznikowski	Nuno Vieira e Brito
Bengt Everitt	Kor Oldenbroek	Haldja Viinalass
László Fésüs	Norbert Ratheiser	Paul Vriesekoop
Dunixi Gabiña	João Manuel Ramalho Ribeiro	Metin Yener

### 7.3.1 Ways and Means Committee

The Ways and Means Committee (WMC) chaired by the Vice President WMC monitored the implementation of the EAAP Statute and by-laws. It prepared proposal for amendments to the Statute and to By-laws, including rules of procedure of the Council, terms of reference Council committees and working groups and of the Secretary General. It assisted host organizations in making arrangements for the Annual Meetings and other related events. In 2018, the Council enlarged the Terms of Reference of the Subcommittee and included the review of financial documents to be submitted to the Council for approval (draft budget, profit and loss account) and reporting its views to the Council.



*V. Vigne receiving the Distinguished Service Award*



## **7.4 Scientific Committee**

The Scientific Advisory Committee (since 2005 Scientific Committee) composed of presidents of Commissions and chaired by the Vice President Science held two meetings every year: one during Annual Meetings and one in spring on the occasion of the meeting of the Council.

The Joint Sessions of the Council and the Scientific Committee finalized programs of the forthcoming Annual Meetings and were used for briefing presidents of Commissions on the state of the EAAP and on future activities.

Chairpersons of Working Groups were also invited to participate at the Committee meetings.

The Committee regularly monitored and coordinated scientific programs of sessions of Commissions and Working Groups and Special Committees, and in cooperation with host organizations, prepared scientific programs of sessions for the forthcoming annual meetings.

It reviewed and endorsed proposals prepared by the Forward Looking Group related to the role of Scientific Commissions and type of scientific sessions.

It prepared Guidelines for the organization and conduct of scientific sessions and proposals for the inclusion of symposia and workshops into the main programme of annual meetings, for the management of abstracts, measures to alleviate the problem of no-shows and proposed persons for the EAAP awards.

D. Gabiña, M. Bonneau and G. Pollott, secretaries of the Committee, provided technical support and liaison with local organizers of Annual Meetings, EAAP Secretariat and the publisher of the Book of Abstracts.

## **7.5 Study Commissions**

In accordance with the Statutes, Commissions, either independently or jointly with other Commissions, deal with specific matters of a scientific or technical nature having to do with animal production. Up to 2014, Commissions consisted 'of not more than three delegates and three alternates per ordinary member, to be appointed by the respective members themselves' (Article 17.c of the EAAP Statute). In 2014, this provision of the Statute was abolished because it was difficult to implement and to find delegates and alternates in each member organization.

Following recommendations of the Forward-Looking Group, the General Assembly accorded to Study Commissions the role of drivers of the scientific initiatives of EAAP by representing the views and aspirations of animal scientists in Europe.

This included:

- developing and contributing to the Strategic Plan as it relates to the future scientific activities of EAAP
- providing the ideas for the sessions of the annual meetings and supporting the organization of these meetings
- being the focal point for their discipline/species in Europe by supporting network(s) across EAAP member countries
- incorporating industry as a key stakeholder in EAAP activities
- providing proposals for Working Groups to consider transversal/emerging issues and Task Forces to deal with specific short-term issues
- organizing ad hoc meetings and workshops outside the framework of the Annual Meeting
- seeking funds to support their activities.

In 2013, the Council approved the new EAAP Bylaws on Study Commissions which regulates membership and management of Commissions. Each individual member is entitled to register as a member of any of the Commissions. Each Commission is managed by a Commission Management Board composed of the President, the Vice-Presidents, Secretaries, an industry representative and (since 2018) a representative of the EAAP Young Scientists Club.

Larger Commissions may have more members of the Board, subject to the approval by the Council. Bylaws also regulate the criteria and procedure for nomination and election of members of Commission Management Boards. Study Commission (former business) meetings had a fixed agenda (and related standard slides to support the meeting, the same for all Study Commissions, prepared by the Secretariat) having review topics of the past meetings, topics for the future meetings and the structure of sessions.

Some proposed topics for Sessions of the following year should be announced during the EAAP meeting (before the Study Commission meetings) with an invitation to participants to come and influence the future programs. In 2018, the Council introduced the briefing of newly elected members of Commissions' management boards so as to prepare them for their new roles and tasks. In accordance with surveys of attendants at Annual Meetings, about one third of those who replied to the questionnaire (some 30% of participants in respective Annual Meeting) participated in the Commissions' Meetings.

Up to 2003, there were eight Commissions (Animal Genetics, Animal Nutrition, Animal Management and Health, Physiology, Cattle Production, Sheep and Goat

Production, Pig Production, and Horse Production). In 2003, the Working Group on Animal Production System was transformed in the Commission on Livestock Production Systems. The Study Commission Animal Management and Health was renamed Commission Health and Management.

In 2016 the Council reviewed a document specifically prepared by I. Halachmi as Terms of Reference of research and activities of Precision Livestock Farming (PLF) in Europe. It noted that the EAAP had already been involved in some aspects of PLF as a partner in one EU project.

It also referred to the discussion at its 155<sup>th</sup> meeting on PLF as an area of growing scientific and commercial importance and reiterated its intention to include animal science aspects of PLF in the EAAP mandate.

During the late eighties the production of insects as a source of protein for feed and potentially food was recognized as an emerging animal production branch as well as a new field of animal science and research. The Council after having examined the note presented by G. van Duinker requested the President and Secretary General to complete consultations, to select a potential convener and to prepare a proposal for the establishment of the new Insect Study Commission. The General Assembly approved proposals for the establishment of the Insect Study Commission and the Precision Livestock Farming Commission.

**Table 4. Study Commissions and relative Presidents**

Study Commission	Presidents from 2000 to 2018
Commission of Animal Genetics	Johan A.M. van Arendonk, Vincent Ducrocq, Henner Simianer, Erling Strandberg
Commission of Animal Health and Welfare	François Madec, Eberhard H.K.F. von Borell, Christine Fourichon, Hans Spoolder
Commission of Animal Nutrition	Ynze van der Honig, John D Oldham, Gianni Matteo Crovetto, Jan Erik Lindberg, Gert van Duinkerken, Giovanni Savoini
Commission of Animal Physiology	Michel Bonneau, Kristen Sejrsen, Mogens Vestergaard, Helga Sauerwein
Commission of Livestock Farming Systems	Annick Gibon, George Zervas, Alberto Bernués Jal, Muriel Tichit

Commission on Cattle	Cledwyn Thomas, Sergio Gigli, Abele Kuipers, Marija Klopčič, Jean-Francois Hocquette
Commission on Horse	Erich W. Bruns, William Martin-Rosset, Nicoletta Miraglia, Ana Sofia Santos
Commission on Pig	José Adalberto Fernandes, Caspar Wenk, Pieter Knap, Charlotte Lauritsen, Egbert Knoll
Commission on Sheep and Goat	David Croston, Dunixi Gabiña, Markus Schneeberger, Lois Bodin, Joanne Conington
Commission on Insects	Teun Veldkamp
Commission on Precision Livestock Farming	Ilan Halachmi

## 7.6 Working groups

Working groups deal with the specific scientific and development problems related to their mandate that might be discussed within the EAAP Annual Meetings in sessions, symposia and workshops organized separately or jointly with the EAAP Study Commissions. They are entitled to organize events also in the period between Annual Meetings and to cooperate with other international bodies having similar programs. They discuss issues in a broad perspective that can lead to new ideas for research and development programs in the region.

In 2000, there were three Council working groups: Livestock Farming Systems, Contact Group on CEEC, and the Mediterranean Symposia Group. The Council (90<sup>th</sup> session of 29 April 2000) agreed to establish three new working groups: Ethics, Welfare and Emerging Issues, Aquaculture and Alternative Production.

Groups that have completed their terms of reference and programs or have not been active have been closed: the Council closed the WG on alternative production and WG on higher academic education in 2004.

In 2007, the Council had asked each of its Working Groups to do a self-evaluation and report of its activities in accordance to its Terms of Reference and propose the office bearers in conformance with the By-Laws. It was emphasized again that

each WG should associate its work with one principal Study Commission. They should also regularly check the eligible periods of their office bearers and submit the revisions to the final approval of the next Council meeting.

Every year the Council evaluated activities of working groups at the meeting with chairpersons. Efforts to activate the Aquaculture working group gave first results in 2010 and in 2011, when at the Annual Meeting in Stavanger, there was an aquaculture symposium and one specialized session.

In 2014, the Council endorsed the proposal prepared by Odd Vangen, Vice President Science and Andrea Rosati, Secretary General, to reorganize the system of working groups. It established Commissions' working groups and across Commissions' working groups.

The following Commissions' working groups were established:

- Sheep and Goat Commission
  - Working Group Animal Fibre
  - WG Lamb and kid survival
- Cattle Commission
  - Cattle Network Working Group
- Nutrition Commission
  - Working Group on Energy and Protein Metabolism
  - Working Group Harmonization of Feeding Standards
- Genetic Commission
  - Working Group on Animal Genetic Resources
- Pig
  - Working Group on Entire Male Pigs
- Horse Commissions
  - Socio-economic aspects of horse production
  - Horse nutrition
- Health and Welfare
  - Working Group on animal behaviour (WG-AB)

At the same time, the Council established the following Across Commissions' working groups:

- Working Group on Ethics
- Working Group Central and Eastern Europe
- Working Group Mediterranean: the Group has been linked to Livestock Farming Systems, Cattle and Sheep and Goat Commissions
- Working Group Aquaculture (the Group has been linked to Genetic and

Nutrition Commissions)

- Working Group Companion Animals
- Working Group Interstallion (Horse and Genetic Commissions)

In 2018, the Council established the Working Group Livestock Farming in Mountain Regions and the Working Group Camelids. It nominated a convener of the Working Group Aquaculture and requested him to prepare Terms of Reference of the future WG and program of activity taking into account programs of other bodies active in this field and timing of their events. The analysis of options for future developments in animal science and production resulted in the identification of potential fields for international cooperation, namely:

- environmental impact of animal production
- green house gas emission
- alternative protein sources
- emerging diseases

**Table 5. Existing Working Groups and relative Chairpersons**

Working Groups	Chairpersons from 1999 to 2019
Working Group on Animal Genetic Resources	Gustavo Gandini, Sipke Hiemstra, J.Fernandez
Mediterranean Working Group	Fouad Guessous, Isabel Casasús, Francois Casabianca, Christina Ligda
Working Group on Ethics	Michel Marie, Elsbeth Stassen, Bart Gremmen
Cattle Network	Jean-Noël Bonnet, Patrick Sarzeaud, Jean-Francois Hocquette
Working Group on Central and East European Countries	Franc Habe, Arūnas Svitojus, Igor Štoković, Peter Polak, Radovan Kasarda
Fiber WG	Carlo Renieri, Daniel Allain
Companion Animals Working Group (currently not active)	Paolo Carnier
Lamb and kid survival	Jean-Marc Gautier
Working Group on Energy and Protein Metabolism	
Animal behaviour	Laura Boyle
Entire male pigs	
Mountain livestock farming	Giulio Cozzi



*Relaxing time in Rome during Council meeting days*

## **7.7 The Secretariat**

In 2000, the EAAP Secretariat was composed of J. Boyazoglu, the Executive Vice-President, who functioned as the secretary general of the Association, and two full time staff. They were assisted by two part-time consultants.

In 2002, the Council nominated A. Rosati the Secretary General who took up his duties on 01 November 2002. In addition to functions established by the Council and formulated in the EAAP By-laws (correspondence, treasury and accountancy, preparation of documents for the Council and the General Assembly, representation at meetings and the management of publications and the management of the EAAP website), the Secretariat provided secretarial support to the International Committee for Animal Recording (ICAR), World Association for Animal Production (WAAP), to the Rare Breed International (RBI), and European Regional Focal Point for farm animal genetic resources (ERFP).

Provision of services to RBI has been discontinued since 2003. The Secretariat has managed web sites of the Working Group Cattle Network, the Patent Sentinel and Action service (PSAS). It provided services related to dissemination of information for EU funded projects, such as distribution of project newsletters and arrangements for project activities taking place during the EAAP Annual Meetings. In addition, some members of the Secretariat participated in the implementation

of the EU projects and action plans as experts, project coordinators and leaders of working groups. They have produced several technical and review papers within projects' activities. The Secretary General or his nominees represented EAAP at the meetings of governing and technical bodies of WAAp, ASAS, ADSA, ISAG, FAO, IDF and ICAR and undertook several informative and exploratory missions to countries eligible for the EAAP membership.

The number of staff varied in accordance with the workload and the volume of services. In 2010, ICAR established its own secretariat and the number of the EAAP full time staff has been reduced to one person.

The larger involvement of the Association in the implementation of the EU projects and action programmes has imposed the need for additional staff. In 2010, the EAAP Secretariat was composed of the Secretary General, one full time staff member and four part time consultants - technical advisors (general matters, finances, web site and distribution of information, EU projects).

In 2019 in addition to the Secretary General there were two full time and three part time staff members. "Andromeda Services Sas" provided IT support for the EAAP Secretariat and for the EU Projects.

**Table 6. Secretary Generals**

Jean Boyazoglu	1998 - 2002
Andrea Rosati	2002 -

**Table 7. Secretariat Staff members**

Valérie Vigne	1992 - 2013
Elena Couto	1996 - 2009
Cesare Mosconi	2003 - 2009
Milan Zjalić	1998 -
Antigoni Dimitriadou	2004 - 2009
Elena Murelli	2009 - 2011
Pamela Canavacci	2010 - 2013
Rebecca Neilson	2013 - 2016
Eleonora Azzaro	2012 -
Federica Motterle	2016 -
Katarina Moncmanova	2016 -
Andrea Pompozzi	2016 - 2018
Marlène Sciarretta	2017 -
Riccardo Carelli	2018 -
Federico Liguori	2019 -



## 7.8 The EAAP Young Scientists Club

P. Chemineau, President of the EAAP, informed the 58th General Assembly (Copenhagen, August 2014) on actions undertaken by the Council to support and engage students, post-graduates and young scientists to participate in EAAP programs and activities. He commended M. Gauly for his initiative and active support to this action. Bylaws on the EAAP Young Scientists Club, approved in 2014, regulated that students of animal science, post-graduates and young scientists who are individual members under the age of 32 years may apply for membership in the Cub Club by sending a request to the EAAP Secretariat. The establishment of the Cub Club resulted in active participation of early career scientists in scientific sessions and meetings on the occasion of the EAAP annual meetings and scientific events outside the EAAP annual meeting. Since its establishment the committee of the Young EAAP under the leadership of P. Aad and C. Lambertz, chairs of the Club, organized ten events during the Annual Meetings. In 2017 the Council decided that each Study Commission should nominate a representative of the Cub Club as a member of the respective management board.



*P. Aad, E. Azzaro, M. Gauly and C. Lambertz*

## 8. Services to Members and to Animal Science

### 8.1 Annual Meetings

The Annual Meeting is a central event organized by the EAAP. Its content and structures are meant to satisfy variety of interests of animal scientists, researchers from related fields, officials of state administration, representatives of breeders and their organizations, young researchers, professionals, students, and accompanying persons. All Annual Meetings held in the period under the review included study tours and field trips, special programs for accompanying persons and several social events. Local organizers also offered post-conference tours for interested participants.

#### 8.1.1 Themes of Annual Meetings

Themes of Annual Meetings were decided by the Council on the basis of proposals made by local organizers and views and comments of the Scientific Committee. They reflect the current research priorities in animal science as well as interests and demands of the public.

**Table 8. Annual Meetings**

AM	Date	Place	Theme
51	21 - 24 Aug. 2000	The Hague, The Netherlands	Interaction between research and innovation in animal production.
52	26 - 29 Aug. 2001	Budapest, Hungary	Animal production and food safety and quality.
53	1 - 4 Sept. 2002	Cairo, Egypt	Livestock in harsh environment.
54	31 Aug. - 2 Sept. 2003	Rome, Italy	Product quality from livestock systems.
55	5 - 9 Sept. 2004	Bled, Slovenia	Sustainability of livestock systems.
56	5 - 8 June 2005	Uppsala, Sweden	Impact and challenges of a widening Europe for animal production and research.
57	17 - 20 Sept. 2006	Antalya, Turkey	Sustaining production systems to improve the livelihoods (health, well-being, and wealth) of livestock farmers.

58	26 - 29 Aug. 2007	Dublin, Ireland	Sustainable animal production – meeting the challenges for quality food. Efficient and environmentally friendly livestock farming. Biodiversity and sustainable animal production systems. Impact of food demand, quantity wise, on animal production. The importance of animal production for food supply, food quality and environment. Sustainability and efficiency of the livestock sector. New challenges facing animal production for diversified territories, market demands and social expectations. Quality and sustainability in animal production. Innovation in livestock production: from ideas to practice. Sustainable food production - livestock's key role. Patterns of animal production in the development of bioeconomy. Conventional and traditional livestock systems – new challenges. Animal farming for a healthy world.
59	24 - 27 Aug. 2008	Vilnius, Lithuania	
60	24 - 27 Aug. 2009	Barcelona, Spain	
61	23 - 27 Aug. 2010	Heraklion, Greece	
62	29 Aug. - 2 Sept. 2011	Stavanger, Norway	
63	27 - 31 Aug. 2012	Bratislava, Slovakia	
64	26 - 30 Aug. 2013	Nantes, France	
65	25 - 29 Aug. 2014	Copenhagen, Denmark	
66	31 Aug. - 4 Sept. 2015	Warsaw, Poland	
67	29 Aug. - 2 Sept. 2016	Belfast, UK	
68	28 Aug. - 1 Sept. 2017	Tallin, Estonia	
69	27 - 31 Aug. 2018	Dubrovnik, Croatia	
70	26 - 30 Aug. 2019	Ghent, Belgium	

The Council had accepted invitations of the related Members to held future Annual Meetings as follows:

71	2020	Porto, Portugal
72	2021	Davos, Switzerland
73	2022	Florence, Italy
74	2023	Lyon, France
75	2024	Vienna, Austria
76	2025	(site not decided yet), Germany



*Fun and music at Annual Meeting Social Events*

### **8.1.2 Participants**

In the period under the review, annual meetings were attended by over 20.000 participants from 99 countries. This number includes accompanying persons, students, EAAP scholars and daily participants. The number of participants depended very much on the location and on the year and varied from 464 to 1551. Dates of some of Annual Meetings have been adjusted so as to minimize impact of other events on attendance, as was the case of the meeting in Antalya, and to maximize the participation of scientists from all over Europe. About 10 % of participants were students and 8% accompanying persons. Number of daily participants varied between 16 or 4% (the 57<sup>th</sup> meeting in Antalya) and 150 participants or 6% (the 60<sup>th</sup> meeting, Barcelona). EAAP provided scholarships for participation at Annual Meetings to 396 young scientists. Participation to the Annual Meeting grew very much in the last year. The range of participants in the first years of the period under consideration, last twenty years, was between 450 to 900, in the last years the range goes from 1000 to 1550, showing the growing interest for the EAAP Annual Meetings.

The largest number of participants came from Germany, Italy, France, the Netherlands, and Spain. As of countries outside the EAAP area, the largest number came from USA (over 400), Canada, Australia and Brazil. In total, over 450 participants came from Latin America and similar figure from Sub-Saharan Africa among which over 100 from the South African Republic. In addition to 88 participants from Japan, another 36 participants came from Asia among which 14 were from China and 12 from Korea. The highest number of participants from potential EAAP member countries came from Iran (145).

In accordance with data collected through surveys of attendees carried out for Annual Meetings held in the period 2014 - 2018 it could be estimated that about 50% of participants were 40 years old or younger. Around 40% of those who replied to survey attended the Annual Meeting for the first time.

### **8.1.3 No-shows**

Organizers of Annual Meetings on a number of occasions complained that they had received a number of abstracts from authors that failed to register as participants at the Annual Meetings. The Scientific Advisory Committee proposed to the Council measures to reduce the burden of costs on the abstract book and local organizing committee while not discouraging genuine authors who might be unable to present their papers. The 100<sup>th</sup> session of the Council (3<sup>rd</sup> September 2002) agreed that SAC would identify persistent offenders and inform them that future papers would be accepted with evidence of registration. Local organizers would liaise with the publisher of the Book of Abstracts one month before the meeting and cross-check registrations with authors. The problem was solved by elimination of abstracts of authors who did not register.

### **8.1.4 Organization of Annual Meetings**

The procedure for the organization of the EAAP Annual Meetings had been regulated by the Guidelines on how to organize and conduct scientific sessions. The Procedure included the offer of the Member Country to host one of the forthcoming meetings, acceptance by the Council and approval by the General Assembly. The Member Country then formed an organizing committee to develop the program of the meeting and take care of all technical, financial and organizational matters - from fund raising and mobilization of potential sponsors to the registration of participants, distribution of documents, organization of accommodation for participants, study tours, social events. Although national

organizations that hosted EAAP Annual Meetings being mostly academic institutions were not equipped nor had particular experience and expertise in the organization of large international events, all Members that hosted meetings in the period under the review were praised for hospitality, excellent organization, functional facilities and pleasant social events.

In 2010, noting that these types of technicalities represented a substantive burden to local organizers, the EAAP Council initiated arrangements with a professional conference organizer (PCO) that would deal with technical aspects of the organization of annual meetings.

However, the first attempt to engage an external PCO failed because national organizers were obliged to select a PCO through a bidding procedure. The 126th meeting of the Council held in Barcelona in 2009 encouraged the EAAP Secretariat to pursue the initiative to seek alternative solutions to make use of the experience gained in hosting the Annual Meetings by its members.

The aim would be EAAP to take a more concrete role in managing the Annual Meetings.

In 2016, Service-EAAP s.r.l., a commercial company owned by EAAP embarked on the organization of industry workshops for the private sector.

A team of professionals created through this activity within the EAAP offered its services to local organizers of Annual Meetings to be held in Italy and France, as well as to organizers of future meetings.

### **8.1.5 Book of Abstracts**

Abstracts of all theater and poster presentations were collected by the publisher of the Book of Abstracts. After the review and selection by future chairpersons of sessions nominated by the Council, abstracts of theater and poster presentations were published in the Book of Abstracts and delivered to participants at the registration for participation at the meeting.

From 2008 onwards, abstracts are also available on the EAAP web site.

In the period under review, there were twenty Books of Abstracts containing abstracts presented at the theatre and poster sessions.

The books were divided in chapters in accordance with themes and sessions and with the order of presentation.

The registration fee for the participation at Annual Meetings included costs of the publication of the book. Books of Abstracts were published by Wageningen Academic Publishers from the Netherlands.

## **8.1.6 Structure of the Annual Meetings**

### 8.1.6.1 Sessions of Commissions

The Annual Meetings were structured in sessions consisting of theater presentations by one or more invited speakers, selected oral presentations of contributions prepared by participants, poster presentations, round tables and discussions. During the period under review, Study Commissions organized their separate and joint sessions. Joint sessions have been organized to deal with subjects and themes having relevance to two or more Commissions or a Commission and a Working Group. Several sessions have been organized in cooperation with other international governmental (FAO, OIE) and non-governmental organizations (ICAR, WAAP, ERF, ATE, FEFANA, EFFAB etc.).

Following the recommendations of the Forward Looking Group, the Council established a new system of session types. Theme Sessions are on key topics in animal science and consist of invited and offered papers. Industry sessions are led and supported by Industry and comprise invited and offered papers. Free communications/Bottom-Up sessions are created from submitted abstracts. Discovery Sessions are invited single/multiple presentations on hot/emerging topics. Challenge Sessions are free format (workshop, open committee, round table) to debate important issues, not theatre paper presentation. Early-career scientist's Sessions deal with matters of particular interest to this group of scientists and offer possibility to young scientists to present results of their research. Project sessions are based around a project which wants to share its results, often combined with submitted abstracts. Working Group sessions (WG) are the results of an EAAP working group.

In general, the system functioned very well. Some changes introduced during the period of implementation, such as a policy paper approved by the Council, related to the contribution by industry representatives and finding the balance between top down and bottom up sessions, contributed to increasing the number of participants and the scientific quality and relevance of contributions.

### 8.1.6.2 Plenary Sessions

Traditionally, Plenary Sessions dealt with general issues and with subjects closely connected with the main theme of the annual meeting. Since 2009, Plenary Sessions are central events of the Annual Meetings. They have partly absorbed the role of Round Tables after the Dublin meeting. Themes of plenary sessions were complementary to the main theme of Annual Meetings.

They tackled hot issues such as the contemporary understanding of climate change and scenarios for adjustment of the livestock sector, animal production and environment, cloning, future research in animal science, consumers' demands, challenges of genomics and challenges in the animal industry. On the occasion of the 150<sup>th</sup> anniversary of the publication of the book 'The origin of the Species' by Charles Darwin, the EAAP Annual Meeting in Barcelona celebrated the event with a Plenary Session.



*V. Ducrocq presenting at Plenary Session*

### 8.1.6.3 Round Tables

The presentation of views of various stakeholders on specific issues affecting animal production and animal research in the EAAP area used to be the main purpose of the Round Tables organized within the Annual Meetings. In spite of the important role they played in contributing to the quality of meetings and relevance of messages sent to researchers and producers, majority of participants and Members considered that they were using precious time thus causing either reduction in numbers of sessions organized by Commissions or prolongation of Annual Meetings and because the format of the Round Tables was considered to be old-fashioned. The last Round Table was held at the 57<sup>th</sup> annual meeting held in



Antalya in 2006. The program of the 58<sup>th</sup> annual meeting (Dublin, 2007) skipped the Round Table in view of some exceptional events, such as presentation of the 7<sup>th</sup> EU Framework Programme, presentation of technology platforms related to animal science and a lecture on animal nutrition presented by a sponsor of the annual meeting. Since 2008 the Round Tables were abandoned and replaced by the Plenary Sessions.

#### 8.1.6.4 Poster sessions

Poster sessions have been always an important part of the EAAP Annual Meetings, particularly in view of the fact that almost half of scientific contributions were presented in the form of a poster. Usually, posters are exhibited in special halls or in lobbies connected with several meeting rooms so as to facilitate direct contacts between authors and interested participants.

From 2001, the evaluators nominated by the Council reviewed posters and proposed the Romert Politiek Award for the best poster presented at the Annual Meeting. Poster session was usually combined with some semi-social events so as to attract more participants and the presence of authors.

The evaluation of poster sessions was almost a permanent agenda item of all meetings of the Council held after the Annual Meeting. Assessment of participants and conclusions of the Council indicated that the quality of poster sessions greatly varied and that it depended on some specific factors such as timing, type of facilities and the presence of parallel events.

The discussion at the 129<sup>th</sup> meeting of the Council illustrates the preoccupation for quality of poster sessions: 'It is a general feeling that posters are not treated fairly. It was discussed whether the posters should be displayed for two days, for the four days meeting, or if there should be more than one poster session. It was unanimously agreed that the posters should not be split and that they should be put up from Monday to Thursday, and that maybe a second poster session could be organized (a time excluding early morning and late evening).

This would however entail a very large surface area (in the range of 1500 m<sup>2</sup> for 800 posters). Other possibilities are that apart from Genetics, the poster could be presented during the sessions. This needs to be discussed further along with the Presidents of Commissions or, if this is not feasible, it is better to split into two sessions (half posted on Monday and Tuesday, half posted on Wednesday and Thursday) rather than having a poor or faraway place. Another possibility is daily poster session targeted on the subset of posters corresponding to the theatre sessions of the day.

People presenting posters have the obligation to be close to their poster during the targeted poster session their poster belongs to. Their presence is not compulsory during the other poster sessions. K. Sejrson mentioned that the way it was done in Barcelona worked quite well and that if it was near the lunch and coffee area it could be a plus. M. Bonneau suggested that a standing lunch near the poster area could be effective.

No agreement has been found and it will be discussed again at the next Council meeting in Crete. G. Zervas said “that they could try and have the poster session every day and see how this works out”. It was also suggested that maybe the local organizers could put the lunch close by the poster or reduce it to sandwiches (in order to also reduce the registration fee).

Eight years later, the Council at its 169<sup>th</sup> meeting ‘agreed that the poster session should not be held parallel with any other event, should have fixed timing – two time slots one hour after lunch, without parallel events, if required spread on more locations. The organization of poster guided tours should be continued’. The Secretariat was requested to send an excuse to participants which registered for post guided tours at the current Annual Meeting. The Vice President Science was invited to transmit these suggestions of the Council to the Scientific Committee. Poster guided tours were introduced on an experimental basis in 2016 for posters of two Study Commissions. Following the success of the first year the system was applied in 2017 and 2018 for three more Commissions.

#### 8.1.6.5 Symposia, Workshops and Seminars

Up to 2009, symposia and workshops were held before and after Annual Meetings. The number of satellite events varied from five to ten. In general, hosts of the EAAP Annual Meetings considered that satellite events represented an additional burden for organizers and that they distracted a number of scientists from the main event. For example, the 55<sup>th</sup> Annual Meeting held in 2004 in Bled, Slovenia, was accompanied by nine satellite events:

- 12<sup>th</sup> International symposium Animal Science Days
- Annual meeting of the SAVE Foundation and Network
- FAO-DAGENE-EAAP workshop on molecular genetic methods
- DAGENE meeting
- ERFPP workshop on animal genetics
- International symposium on sustainable cultivation and land use on karst and mountain areas by use of animals

- Workshop of the WG for Central and Eastern Europe on dairy farm management and extension needs in CEE under restrictions of the EU milk quota
- Academic Curricula Programmes on teaching in animal nutrition
- Workshop on preparing and presenting scientific papers.

On average, some 500 participants attended workshops and symposia held as satellite events connected to the Annual Meetings (Uppsala 502, Antalya 426, Dublin 389).

Many potential participants at the Annual Meetings complained that participation at satellite events and at the Annual Meeting required too long absence from their work and additional expenditures which their budgets cannot afford. In 2007, the Council approved the proposal made by the Scientific Committee to integrate workshops and symposia in the programme of the Annual Meetings so as to offer possibilities to a larger number of scientists to participate in events of their particular interest.

The first experience in the implementation of the new system (the 60<sup>th</sup> Annual Meeting in Barcelona 2009) has shown that participants appreciate possibilities to attend a variety of specific events which are, however, well integrated within the main theme of the annual meeting.

Since 2009, symposia and workshops were integrated in the main programme of the Annual Meeting.

However, some events, like meetings and workshops of National Coordinators for Farm Animal Genetic resources and workshops organized by INTERBULL have continued to be organized as satellite events.

#### 8.1.6.6 Training seminars on how to write and present scientific papers

Training seminars on How to write and present scientific papers had been organized for the EAAP scholars and other interested early career animal scientists in connection with all annual meetings held during the period under the review. In 2015, The Council reviewed experiences and results of previous workshops on writing and presenting scientific papers.

It expressed its appreciation and thanks to the team of lecturers: B. Malmfors, P. Garnsworthy, and Mike Grossmann for their work and excellent results attained. Noting that the subject has been included in curricula of the major part of academic institutions and taking into account the development and application of new communication techniques and targets (e.g. scientists versus public and industry), the Council agreed to investigate modalities of a new approach to be

applied in the future.

The Council decided that the 2015 workshop would be organized following the existing pattern and that a study group will be established to propose a new approach. The workshop was organized following the existing pattern in 2016, 2017, and 2018 Annual Meetings.

#### 8.1.6.7 Scholarships

In the period 2000 - 2018 the EAAP granted 378 scholarships to young scientists for participation at the EAAP Annual Meetings.

Each scholar has prepared and submitted a research paper at one of sessions and participated at the training workshop on how to write and present a scientific paper. Funds for scholarships came from the EAAP budget, Schauman Stiftung (Germany), Wageningen Academic Publisher and the journal ANIMAL.

In the period 2000 - 2008, Foundation Tom&Jean Sutherland provided scholarships for young scientists from the Near East area.

In 2002, the EU funded project YoungTrain made it possible for young scientists, participants in the project, to attend the EAAP annual meeting.

In 2007, the Irish organizing committee provided additional funds for scholarships.



*Young scientists receiving scholarships in Warsaw 2015*

#### 8.1.6.8 Survey of attendees

Surveys of attendees have been carried out in various forms since 2008 and has been utilized to collect views of participants on quality of scientific programmes and organization of the Annual Meetings. Since 2015, a standardized questionnaire was sent to all participants with request to evaluate programmes and events within the past Annual Meeting. Findings and recommendations of participants were analyzed by the Council and the Scientific Committee and forwarded to organizers of future meetings.

### **8.2 Industry workshops**

Over thirty industry sessions have also been held within the Annual Meetings. In 2016, the EAAP Secretariat and the Service-EAAP s.r.l., within the framework of the EAAP policy for improved cooperation with industry, organized several workshops and symposia for private industries outside Annual Meetings in different locations.

### **8.3 Dissemination of information**

During the past twenty years the EAAP developed several tools and programs aimed at disseminating scientific information within the community of animal scientists as well as towards public and policy makers. Dissemination of information through the publication of books, the journal ANIMAL, magazine Animal Frontiers, Advances in Animal Biosciences, the EAAP Newsletter, newsletters of Study Commissions and through social networks - Facebook and Twitter - has brought the EAAP to the highest place among international organizations active in the field of animal science and animal production.

This was also a decisive factor which contributed to the decision of over two hundred partners in fifteen EU funded projects to assign the EAAP to disseminate information as a part of these projects.

#### **8.3.1 EAAP Scientific series**

In 2000, the EAAP issued its Publication No.97 'Livestock farming systems - integrating animal science advances into the search for sustainability' containing research and review papers presented at the fifth international symposium on livestock farming systems organized by EAAP and the Swiss federal Station for Animal Production.

Forty books published in the EAAP scientific series during the period under the review covered various themes related to animal science and animal production, such as Publication No. 126 'Breeding for robustness in cattle', proceedings of sessions of the EAAP Commissions, such as Publication No. 100 'Quality of meat and fat in pigs as affected by genetics and nutrition' and proceedings of symposia such as proceedings of four Mediterranean symposia organized by EAAP, FAO and CIHEAM, of two symposia on energy and protein metabolism and nutrition, two symposia on horse welfare and nutrition as well as proceedings of four biennial sessions of ICAR. Publication No. 129 'New trends and innovation in the Mediterranean animal production' - a proceeding of the Ninth Mediterranean symposium was issued in 2010. The last publication from the series was number 136 "New equine economy in 21st century" issued in 2015. Since 2015, proceedings of symposia and workshops have been published in "Advances in Animal Biosciences".

### **8.3.2 EAAP Technical Series**

Proceedings of several workshops and symposia containing technical papers of interest to the broader audience were published in eight issues of the EAAP Technical Series established in 2000.

Four issues dealt with problems of Central and Eastern European countries: protein feed, privatization of service organizations, livestock production systems and farm management.

Four issues contain papers on the image of the cattle sector and its products, foot and mouth disease, working animals and on the interaction between climate and animal production. Some technical and review papers published in the EAAP Technical Series have been translated in other languages and published in local publications. Since 2010 "Advances in Animal Biosciences" have taken up functions of the EAAP Technical Series.

### **8.3.3 Livestock Production Science**

Livestock Production Science (LPS) was established in 1974 as the official journal of the Association. The aim of the journal was to contribute to contacts between member countries, to publish selected and the most important reports presented at the Association's Annual Meetings and symposia, as well as contributions from research and experimental institutions all over the world.

In 2000, the journal published some 1500 pages. EAAP provided editors, an

editorial board and material for publication, while the publisher - Elsevier Scientific Publishing Company - was the owner of the journal.

The publisher provided financial support to the Association to cover expenses of the editor in chief.

In addition, the publisher provided financial support to the training workshops for young scientists 'Presenting Scientific Papers' organized during the annual meetings held in The Hague, Budapest, and Cairo.

In 2005, a request by the EAAP to the transfer ownership of the journal to the Association, and for an increase in contribution of the journal to the EAAP budget, was not accepted by the publisher.

The Council then decided to embark on a more strategically adequate and financially sound solution.

#### **8.3.4 *animal* Journal**

The *animal* Journal, an international journal of animal bioscience was established in 2006 as the official EAAP journal and the joint venture of EAAP, INRA (France) and the British Society of Animal Science - BSAS (UK).

The first number of the journal was published in February 2007. During the period under the review, *animal* Journal appeared in twelve volumes with 140 issues and over 10.500 pages.

It published the best research in animal biology and animal systems from across the spectrum of agricultural, biomedical and environmental sciences. It achieved an Impact Factor of 1.461 in only its 2<sup>nd</sup> year of being indexed by Thomson Reuters JCR®. In 2008, the journal was ranked 13/49 in the Agriculture, Dairy and Animal Science list and 34/141 in Veterinary Sciences list compared with 22/45 and 49/134 in 2007.

The *animal* Journal is now among the best international journals dealing with animal science and research and the place to publish and read high quality animal science. The *animal* Journal publishes the best, innovative and cutting-edge science that relates to animals (farmed or managed) used for animal production, and that is relevant to whole animal outcomes, and/or to animal management practices. It covers animal production, animal welfare, animal health, food security, environment, climate change, human health and nutrition, and livestock systems. The Journal is published by the Cambridge University Press and managed by a board composed of representatives of members of the consortium. M. Doreau, J. Noblet and I. Ortigues-Marty are Editors-in-Chief.



*P. Chemineau, M. Gauly and A. Rosati*

### **8.3.5 Advances in Animal Biosciences**

‘Advances in Animal Biosciences’ was established as an associated publication to the journal ANIMAL. It publishes high-quality conference, symposia and workshop proceedings about animal-related aspects of life sciences with emphasis on farmed and other managed animals. Since 2010, 28 issues have been published in nine volumes. C. Thomas acted as Editor-in-Chief throughout the period under the review.

### **8.3.6 Animal Frontiers**

In August 2010, M. Wulster-Radcliffe, representative of the American Society for Animal Science (ASAS) attending the 130<sup>th</sup> meeting of the Council, informed on the initiative of ASAS for publication of a new type of a journal which would present animal science position on issues of public interest and of importance for policy decisions. The journal would be jointly published by ASAS, Canadian Society for Animal Science and the EAAP in the open access electronic form. The theme of the first issue of the journal would be animal science and climate change. Costs would be covered by sponsors. The President and the Secretary General informed the Council that they had discussed the initiative with representatives of ASAS and CSAS and proposed to the Council to endorse the EAAP partnership



in the new review magazine. The magazine would publish discussion and position papers that present several international perspectives on the status of high-impact, global issues in animal agriculture. The American Meat Science Association joined the initiative soon after the establishment of the magazine.

The global community of animal scientists and the public welcomed the establishment of *Animal Frontiers* as a novel forum intended for international readership of scientists, politicians, industry leaders and the general public seeking a scientific perspective on issues related to animal agriculture. Eight volumes and 32 issues explored themes of broad and current interest within animal science and animal agriculture.

The first issue dealing with the carbon footprint was presented at the 62<sup>nd</sup> annual meeting in Stavanger, Norway in September 2011. The two following issues of the magazine covered international trade and livestock production and genomic revolution followed by issues on actual topics such as animal production and water, animal welfare, animal production and food security, public health and insects as source of nutrients. The EAAP was responsible for providing guest editors for one issue every year.

### **8.3.7 Book of Abstracts**

In the period under the review there were twenty Books of Abstracts containing abstracts presented at the theatre and poster sessions. The books were divided in chapters in accordance with themes and sessions and with the order of presentations. The registration fee for the participation at the Annual Meetings included costs of the publication of the book. From 2008 onwards, abstracts are available at the EAAP web site. The Books of Abstracts were published by Wageningen Academic Publishers from the Netherlands.

### **8.3.8 Web Site**

The EAAP web site covers the wide range of subjects including presentation of the EAAP, its structure, members, Annual Meetings, Council, Commissions, Working Groups publications, and up-coming meetings including links with local organizers of the forthcoming annual meeting.

Links with hosts of the future annual meetings and organizers of workshops and symposia include also a possibility for on-line registration. The site has links with other relevant organizations having a bearing on animal production and research. Since 2008, in addition to the Book of Abstracts, the web site contains also PDF

forms of papers presented at the EAAP annual meetings. Scientists wishing to join the Association as individual members can use the special feature of the web site. The number of visits to the web site has been constantly growing, in particular after the inclusion of the book of abstracts and PDF forms of papers presented at EAAP annual meetings.

Since 2011, the average number of visits to the site stabilized to around 8900 visits/month with an average of 3 pages/visitor. The peak was reached in September each year with 9200 visits, immediately after the Annual Meeting and each visitor downloaded on average 5.5 files, mainly focused on presented files.

The number of visitors downloading of the Book of Abstracts was around 2200.

### **8.3.9 Commissions' web sites**

The Secretariat created for the Nutrition, Insects and Horse Study Commissions in 2017 - 2019 specific web sites with information on new literature, events and developments in their respective fields of interest.

### **8.3.10 Social networks**

In 2014, the EAAP Secretariat created the new EAAP web page but it was only in 2016 when the EAAP team recognized importance of quick and direct contacts with animal scientists and the public to promote the EAAP visibility at the global level. In 2017, the EAAP Facebook and the Young Scientists were merged and in 2018 reached over 2400 followers. The EAAP Twitter reached over 850 followers.

### **8.3.11 Restricted area**

At the beginning of the past decade the EAAP established a restricted site for animal scientists from the EAAP Member Countries who are interested in obtaining information on scientific papers published in various international and national journals.

The web site contained short thematic reviews and summaries prepared by selected scholars. The site was available to scientists that register at the webmaster in the EAAP Secretariat.

In 2014, the restricted site was re-organized and opened to individual members only. It contained Books of Abstracts, books from the EAAP Scientific Series, Newsletter, access to the journal *Animal*, list of individual members and members' profiles.

### **8.3.12 Newsletter**

Initially, the EAAP newsletter was established in 1988 as a part of the EAAP official journal “Livestock Production Science” and a tool for information of researchers and professionals in member countries on activities carried out by the EAAP and other relevant international organizations. It published articles on some specific topics of special interest and information of future activities and meetings. The newsletter was published three times a year and was available in the printed form only. From July 2007, it appears on the EAAP web site as a separate electronic publication oriented mostly towards individual members with quick and short information on planned and past events and activities. In the period 2007 - 2011, there were eighteen printed and eight electronic issues of the EAAP Newsletter. From 2011, the newsletter was issued monthly and from 2017 twice a month. In 2019 it is distributed to around 3800 addresses. The most recent figures showed that there were around 1000 downloads (readers).

### **8.3.13 Animal Science Dissemination Team (ASSET)**

Taking into account results obtained in the field of dissemination of information and experience gained in the implementation of fifteen EU funded projects, the EAAP Council established an animal science dissemination team as a consultancy group providing professional services to animal science and the livestock industry. The team covers dissemination, training, capacity building and information technology. The fifteen-member team was established in 2018. M. Gauly, President of EAAP, is a team leader while A. Rosati, Secretary General of EAAP, acts as a team coordinator.

## **9. Awards**

The EAAP Statute authorized the Council for establishing and awarding specific prizes and awards to deserving scientists and other professionals in the field of animal science and production.

### **9.1 A.M. Leroy Fellowship**

The A.M. Leroy Fellowship highlights the work of an active scientist or professional whose activities and reputation are internationally recognized.

The award goes to the candidates who in view of the Council and Scientific Committee have made an outstanding scientific contribution to animal production over a sustained period. The emphasis is to be on internationally recognized work in the EAAP.

Candidates were actively engaged in appropriate work at the time of nomination in an EAAP Member country.

In the period under review, the EAAP Council accorded the A.M. Leroy Fellowship to P. Rafai (2000), J. van Arendonk (2001), K. Sejrnsen (2002), Y. Chilliard (2003), J. Philipsson (2004), F. Madec (2005), P. Knap (2006), S. Edwards (2007), C. Knight (2008), W. Martin-Rosset (2009), M. Doreau (France, 2010), M. A. Toro (2011), J.H. Hermansen (2012), V. Ducrocq (2013), I. Kyriazakis (2014), T. Meuwissen (2015), C. Nicol (2016), L. Bunger (2017), I. de Boer (2018), P. Garnsworthy (2019).

### **9.2 EAAP Impact Award**

The EAAP Impact Award recognizes impact through engagement with industry, students, extension, national and international activities and EAAP.

The award was approved in 2018.

At the moment the definitions of the Impact Award still have to be finalized therefore is not applied yet.

### **9.3 Distinguished Service Award**

In acknowledgement of their outstanding career and service to the livestock sector in general and to EAAP in particular the Distinguished Service Awards was accorded to:

**Table 9. Distinguished Service Award**

<b>Year</b>	<b>Awarded</b>
2000	R. Hanset, K. Dogan, D. Simon, J.H. Hofmeyr
2001	P. Glodek, J. Plesnik, K. Han
2002	M.M. El.Shafie, A.K. Odegard, M. Sedrati
2003	S. Casu, M. Bichard
2004	N. Rethaiser, F. Habe, O. Saveli
2005	L. Fesus, A. Aumaitre, A. Roos
2006	J. Hodges, A. Sommer, M. Zjalić
2007	J. O’Grady, C. Thomas, J. Maki-Hokkonen
2008	O. R. Dyrmondsson, E. Kalm, J. Philipsson
2009	J. A. Fernandez, P. Cunningham, E. Fimland
2010	A.K. van der Zijpp, Francois Madec Stefan Mihina
2011	J. Flanagan, A. Maki-Tanila, D. Gabiña
2012	G. Bertoni, A. Nardone, B. Malmfors
2013	K. Sejrsen, D. Sauvant, M. Schneeberger
2014	M. Bonneau, K. Oldenbroek, F. Ghessous
2015	P. Knap, M. Doreau, A. Hofer
2016	O. Vangen, D. Krencik, G. Pollott
2017	H. Simianer, P. Chemineau, M. Jacobs
2018	V. Vigne, G. Zervas, P. Garnsworthy
2019	A. Baldi, M. Coffey, E. Ugarte

#### **9.4 The Young Scientist Awards**

The award is meant to encourage young scientists for their presentations of original research during the Annual Meetings. Awards are accorded to M. de Marchi, E. Tsiplakou and I. Cervantes Navarro.

#### **9.5 Rommert Politiek Award**

The Romert Politiek Award was introduced in 2001 for the best poster presented at the annual meeting. Winners were A. Gelinder, Anne Offner, Claudia Sussi, Saed Zerehdaran, Marwa. S. Fahem, Margalida Joy, Begoña Panea, Rafael Delfa, Ghyslaine Schopen, Nadine Neugebauer, Shay Reicher, Marcin Pszczola, Gabriel Rovere, Mark Horn, Eric van Cleef, Sabine van Engelen, Mauro Vitale, Phalla Miech and Nina Karapandza.

In 2019, the Council accepted suggestions made by the EAAP Young Scientists

Club and the Scientific Committee and cancelled the Romert Politiek Award, and also decentralised the procedure and increased the number of awardees so that each Study Commission could select one winner according the established procedure.

## **10. International cooperation and strategic alliances**

Since its inception, the EAAP maintained close cooperation with international, regional and national organizations dealing with animal production and animal science. Strategic alliances with key players contributed to the visibility of EAAP and to the relevance of its programs and activities.

These alliances contributed to the flow of information among the most advanced scientific communities but also to the important contribution of European animal scientists in solving problems of food security, hunger and malnutrition at the global level.

The EAAP as a federation of national representative organizations covering scientific, technical and economic aspects of animal production has had all the credentials to become a reliable partner of regional and international bodies and policy makers. These credentials contributed to the establishment of an informal network of sister organizations at the regional and global level.

However, the EAAP did not succeed in establishing cooperative actions with organizations of scientists engaged in research related to poultry, bees and aquatic organisms. At the 96<sup>th</sup> meeting of the Council Dr. Enright had produced a draft document setting out the terms of a proposed collaboration between EAAP and the European Aquaculture Society (EAS). This gave rise to considerable discussion on two points.

First the wording of any such association in the context of EAAP's legal standing in Italy, second, the degree to which a representative of Aquaculture should always be present at EAAP Council sessions.

General agreement was reached, and Drs Boyazoglu, Flanagan and Bichard with Prof. Thomas were asked to provide a revised draft for approval at the next Council Session. These actions did not give positive results. The draft Memorandum of Understanding was not accepted by the potential partner, as reported at the 97<sup>th</sup> meeting of the Council.

At the same meeting Dr Van agreed to re-open his discussions with the European branch of the World Poultry Science Association and thought that the organization might be willing to enter into a formal collaboration agreement similar to that

proposed with the European Aquaculture Association.

Neither attempt yielded results. In 2018, in the decision to re-establish the Aquaculture Working Group, the Council declared that activities of this working group should be complementary to programs of global and European organizations, particularly in the fields of life sciences relevant for all animal species such as genetics, nutrition, climate change, production systems.

These principles could be generally applied in case of all organizations.

## **10.1 Cooperation with the European Union**

In 1999, in his 'Jubilee History of the European Association for Animal Production', John Hodges referred to a point made by several colleagues who worked in Ministries of Agriculture in their own countries with regard to cooperation between EU and EAAP. He wrote: 'Their point is that EAAP would have been wiser to in the recent past to establish firmer links with the Commission of the European Union'. And further: 'Evidently the perceived view by some officials in the Commission is that EAAP is an association of scientists whose main preoccupation is to increase the biological efficiency of food production and who neglect the economic and social implications of a surplus of animal food products in the European market.' He saw the solution in reshaping the internal focus of the association so that new animal science is accompanied by effective use within the economic, social and political environmental parameters and in learning how to present its contributions to the current European problems effectively to decision makers within European agriculture.

All Member States of the European Union, except Hungary and Malta, are members of the EAAP. The importance of close cooperation with the European Commission has been fully recognized particularly in view of the fact that 26 EU Members, and three countries belonging to the European Economic Area (Iceland, Norway and Switzerland), apply the same or coordinated rules and policies related to animal production and animal research.

In the past twenty years, relations with the EU have been marked by the strengthened representative, operational and consultative role of EAAP as a reliable partner and source of expertise in matters related to animal production (implementation of *acquis communautaire* in new Members of EU, animal welfare regulations, CAP reform in beef, dairy and sheep and goat sectors), animal science (participation in FP 6 and FP 7 projects and platforms within the EU Framework Programme 6 and 7) and farm animal genetic resources (participation in GenRes action programme).

The 44<sup>th</sup> General Assembly held on 22nd August 2000 in The Hague, The Netherlands, approved a policy document proposed by Prince Ph. Solms-Lich (then President of EAAP) which called for increased scientific contacts between the EU and EAAP and for profiling EAAP as an advisory and operational partner with the EU Commission. In pursuance of this policy, EAAP officials intensified contacts with the officials from the Research Division of the European Commission.

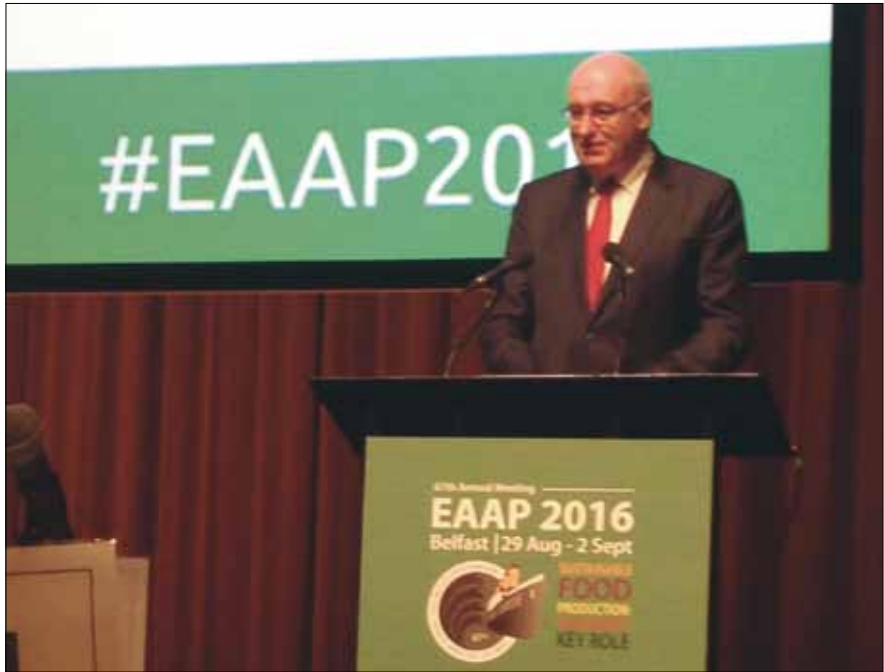
In 2002, Dr A. Dieste from Directorate General 12 Research of the European Commission attended the 100<sup>th</sup> Session of the Council where he declared that funds from the EU programme Accompanying Measures could continue to be used to support young EAAP scientists and that the EAAP was well placed to access EC funds to construct networks and databases. The 104<sup>th</sup> session of the Council (Rome, September 2003) underlined the importance of links with the EU and benefits of the scholarship scheme. New initiatives were announced in connection with the EU Framework Programme 6.

Participation of representatives of the European Commission continued in all subsequent years and has become a regular practice since 2003. In 2015, the President of EAAP presented the document of sustainability of animal production at the European Parliament.

In 2008 P. Chemineau, the EAAP President, in reporting to the General Assembly underlined that 'the promotion of relations of the Association with institutions of the European Commission involved in animal science has been given the highest priority in the current EAAP Strategic Plan. In the attainment of this strategic objective, in addition to the participation in the EU funded projects, of particular importance was the attention given by the EAAP Study Commissions and the Council Working Groups to matters of the vital interest of animal industries in the EU Member States and to the developments in the Common Agricultural Policies. This relates particularly to the past and future activities and themes taken up by the Cattle, LFS (impact of changes in CAP), Nutrition (reduction of N excretion) and Management Commission and Cattle Network, Genetic Resources, Ethics and the Mediterranean Working Groups'.

In the period under the review, the EAAP was a partner in charge of dissemination of information in fifteen EU funded projects working with over two hundred research institutions and industries as partners in these projects. It organized over one hundred seminars, summer schools and workshops, issued forty-five newsletters and maintained ten web pages. More details about this important activity is detailed in the Appendixes.





*Phil Hogan, EU Commissioner for Agriculture, participating to Annual Meeting*

## **10.2 Cooperation with FAO**

Cooperation with FAO, a historical initiator of the establishment of EAAP and a sui generis founder, has been further improved and strengthened mainly through joint activities and mutual participation in activities and events.

In 2000, the EAAP Commissions established close cooperation with the FAO European research networks on small ruminants, buffalo, pasture and fodder crops and on waste management. This included participation in the EU funded projects EFABIS, YoungTrain and GLOBALDIV, hosting workshops and meetings of national coordinators for farm animal genetic resources (ERFP) at the EAAP Annual Meetings.

EAAP supported publication of AGRI, a magazine on farm animal genetic resources. The EAAP experts and staff participated in the preparation of two reports on the state of world's animal genetic resources.

FAO supported the workshops on problems of transition countries organized by the EAAP WG on Central and Eastern European countries. FAO and the EAAP

closely collaborated in the field of farm animal genetic resources, the EU Animal Change project, the maintenance and updating of the European farm animal diversity database and in the Horizon 2020 Consortium. The EAAP contributed to the second report “State of the World Farm Animal Genetic Resources” held in Rome 26<sup>th</sup> -28<sup>th</sup> November 2014. Representatives of FAO (J. Maki Hokkonen, I. Hoffmann, R. Cardellino, B. Besbes) participated at Annual Meetings and meetings of the EAAP Council.

John Hodges in his “Jubilee History” mentioned names of individuals that have strengthened the links between FAO and EAAP by working in FAO and, at different stages of their careers, by holding office or working in EAAP (H.A. Jasiorowski, E.P. Cunningham, H. Pedersen, K. Kállay, J. Boyazoglu, J. Rendel, J. Renaud, P. Auriol, I.L. Mason, J. Hodges, J. Maki Hokkonen, M. Zjalic).



*B. Besbes from FAO lecturing at Plenary Session*

### **10.3 The International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM)**

The International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM) has been an EAAP partner in the organization of five Mediterranean symposia held in the period under the review. The close cooperation also includes the joint publication of proceedings of symposia and active participation of the CIHEAM scientists at the EAAP Annual Meetings and at other activities.

## **10.4 International Committee for Animal Recording (ICAR)**

The European Milk/Butter Recording Committee (predecessor of ICAR) at its first meeting held at the Dutch Ministry of Agriculture in The Hague, on July 14<sup>th</sup>, 1951 adopted its Statutes and elected A.M. Leroy from France, then also President of EAAP, as its president.

The Committee's headquarters and secretariat were installed in the offices of the European Association for Animal Production, Via Quintino Sella 54, Rome. The Secretary General of the EAAP was appointed Secretary General of the ICAR. Subscriptions were set at 500 Swiss Francs per member organization, with special terms for Austria (250 Swiss Francs) and Luxembourg (150 Swiss Francs).

The Committee paid 3500 Swiss Francs a year to the European Association for Animal Production as a contribution to the running costs of the secretariat.

Close cooperation between the EAAP and the ICAR during the period of fifty eight years included the joint organization and management of Patent Sentinel and Action Service (PSAS), joint sessions of the ICAR Subcommittees INTERBULL and Animal Identification and related EAAP Commissions, regular workshops and meetings of INTERBULL during the EAAP Annual Meetings, as well as the provision of the secretarial services by the EAAP Secretariat and sharing of office facilities.

In 2008, on ICAR initiative, ICAR and EAAP started negotiating a new format of the cooperation agreement which would allocate part of the staff, which was fully under the EAAP payroll, to become employed by the ICAR on a full or part time basis. Also certain office and communication costs would be shared between the two organizations.

The total effect of these changes have been planned to total the same sum that was previously agreed as the ICAR annual contribution to the EAAP (€ 100.000) and from 2010 included ICAR did not pay anything to EAAP.

In 2014, the EAAP Council proposed the reorganization of the joint secretariat. A new agreement should be signed by the end of June 2014 at the latest. The agreement between the two organizations was not reached and the EAAP Council decided to discontinue the arrangements with ICAR.

The Board of ICAR established its own office at a new location.

The ICAR Subcommittee INTERBULL continued to organize its technical workshops once in a biennium back-to-back with the EAAP Annual Meetings and to participate in the joint sessions with the Cattle and Genetic Study Commissions of EAAP.

### **10.4.1 Patent Sentinel and Action Service (PSAS)**

The Patent Sentinel and Action Service (PSAS), an initiative developed in 2006 by the EAAP in cooperation with the ICAR monitored patents in the area of animal production and animal science. Its web site had been continuously updated and contained information on the current situation with regard to patenting in the world with particular emphasis on the developed regions, such as North America and Europe, news, presentation of specific cases and 'ask PSAS'. The professionals involved in the use of specific biotechnologies in animal recording and evaluation have shown great interest in the last section 'ask PSAS' because of its interactive character and high relevance of replies. In 2009, the service was left to the exclusive responsibility of the ICAR.

### **10.5 Cooperation with the World Association of Animal Production (WAAP)**

EAAP as a member of the World Association of Animal Production (WAAP), and a number of scientists from the EAAP Members, participated at the 2003, 2008, 2013, and 2018 World Conferences on Animal Production. EAAP provides secretarial services to WAAP and the Secretary General of EAAP acts as the Secretary General of WAAP. In 2018, P. Chemineau, former President of EAAP, was elected President of WAAP.

### **10.6 American Society of Animal Science (ASAS)**

Cooperation between ASAS and EAAP was based on the Memorandum of Understanding between ASAS and EAAP approved in 2004 and revised in 2008. This agreement consists of the waiving of the registration fee of the respective Annual Meeting and financial support (\$ 1000 per speaker for ASAS and € 1000 for EAAP) for up to nine speakers. During the 2004 - 2019 period, the two organizations exchanged over 300 speakers at respective Annual Meetings.

There is also another Memorandum of Understanding between ASAS and EAAP signed in 2008 regarding the Global Issue symposia that provide financial support (exemption of registration fee from EAAP to its Annual Meeting and a financial support of maximum \$10000 from ASAS for a minimum of three invited speakers). The two organizations have established joint individual membership of ASAS and EAAP for scientists resident outside the USA and the EAAP area. ASAS and EAAP organized a joint promotion meeting in China in November 2009.

## **10.7 American Dairy Science Association (ADSA)**

Every year, EAAP and ADSA exchanged speakers at their respective annual events as provided by a Memorandum of Understanding (MoA) signed in 2007. This agreement consists of the waiving of the registration fee of the respective Annual meeting and financial support (\$ 1000 per speaker for ADSA and € 1000 for EAAP) for up to two speakers. In 2015, the Council approved changes in the Memorandum of Understanding with the American Dairy Science Association so as to include the fee of Euro 1500 for invited speakers from Europe and US\$ 2000 for invited speakers from America.

## **10.8 Other Scientific Organizations**

Every year, EAAP also exchanged speakers with the Canadian Society of Animal Science (CSAS) and with Association Latinoamericana por la Produccion Animal (ALPA) at their respective events as provided by respective Memoranda of Understanding (MoA). This agreement consists of waiving the registration fee of the respective Annual meeting and financial support for one speaker per organization. CSAS is also a partner in the publication of the review magazine 'Animal Frontiers'.

## **10.9 Animal Task Force (ATF)**

The Animal Task Force (ATF) was established in 2011 as a European public-private platform to promote a sustainable and competitive livestock sector in Europe, representing key stakeholders from industry, farmers and research. EAAP as a partner in ATF hosted special joint sessions at Tallinn, Belfast, Dubrovnik and Ghent Annual Meetings.

## **11. Management of financial resources**

EAAP as a non-profit international association has two main sources of income: membership fees and donations. The EAAP Council prepared the budget and the statement of income and expenditure for the previous financial year for the approval by the General Assembly. The Secretariat ran the treasury while the accountancy has been out-sourced to a professional accounting organization. In 2016, a professional auditing organization was engaged to control the management of financial resources in support of the constant scrutiny of the Board of Auditors.

Throughout the period under the review, the financial position of the Association has been stable mainly due to regular payment of membership fees by the great majority of Members, sound management of available resources, additional incomes from projects and the existence of the Reserve Fund. In the period 2000 - 2018, the turnover of the EAAP and its commercial organization Service-EAAP s.r.l. has doubled. The submission of detailed reports on financial operations, in view of Auditors and many delegates at General Assemblies, contributed to the transparency of the management of financial resources.

### **11.1 Membership fees**

The total amount of fees paid by Members in the first nine years under review varied between € 245,000 (in 1999) and € 289,000 (in 2005). From 2008, the income from fees increased by 10%. Budgetary expenditures exceeded incomes in 2000, 2001, 2002, 2003, 2006 and 2008, mainly due to the failure of some members to meet their financial obligations.

Reduction in expenditures by over € 30,000 in 2003 was not sufficient to cover losses accrued in previous years. In 2004, the Council approved the cancellation of bad debts of Russia (€ 51,905) and Belarus (€ 7,992), and unbudgeted expenditures (€ 53,782) related to the termination of contract with the former Executive Vice President. The end year balance in 2004 showed a surplus of € 42,000.

However, in 2005 the Council expressed its concern with the situation of outstanding membership fees owed by Egypt, Jordan, and Morocco. In 2006, the negative financial result of € 5,870 was mainly due to the write off of the bad debt from Jordan for unpaid membership fees. The change in membership in Poland resulted in the writing off of the loss of € 10,000 in accounts for 2007. In the 2006, the Council agreed to propose to the General Assembly a 10% increase in membership fees from 2008 onward.

In 2008, the Council decided not to accrue the arrears beyond 2008 from Georgia in view of the situation caused by the armed conflict in the region. In 2011, the Council reviewed the outstanding membership fees and requested the Secretary General to look for specific solutions, such as payment in five years instalments and mechanisms to ensure regular payments of dues. With regard to the financial situation of the Association, the Council agreed on the need to increase membership dues in the near future at least by the rate of inflation, develop income generating activities through Service EAAP and decrease expenditures. The level of reserve should be kept on the level of annual membership fees. A part of the reserve could be invested in new income generating activities, on the basis of the decision by the

Council. Membership fees have not been increased since 2013 which, taking into account the rate of inflation, resulted in practical decrease of some 15%.

## **11.2 External funds for additional activities**

External funds consisted of contributions from the Italian Ministry of Agriculture, from ICAR (up to 2009) and RBI as a compensation for secretarial services, FAO for organization of specific activities and meetings and from the European Commission for the implementation of EU funded projects.

While the additional activities also represented a new workload for the staff in the EAAP Secretariat, income from additional activities contributed to the financial stability of the Association and covered the part of office costs and overheads. Income and expenditures from the external funds were regularly inspected by the Board of Auditors and approved by the Council and the General Assembly within the EAAP annual budgets and annual financial statements.



*K. Moncmanova and E. Azzaro from EAAP staff*

## **11.3 The support of the Italian Ministry of Agriculture**

The Government of the Italian Republic provided through its Ministry of Agriculture, on an annual basis, a support to cover expenses of specific activities carried out by the EAAP for the benefit of animal science and production in Italy. The amount accorded to the EAAP was reduced in 2017 in line with reduction in budgetary expenditures of the Government.

## **11.4 EAAP Programme Foundation**

The need for the provision of additional resources for growing activities of EAAP and the establishment of a special fund was discussed on many occasions.

The 96<sup>th</sup> meeting of the Council (Budapest, 2001), noting that the establishment of the EAAP Foundation had already been accepted in principle, agreed that Drs Bichard, Rossi and Boyazoglu would discuss any necessary modifications and get a final legal opinion before circulating a modified version in English in advance of the April 2002 Council where it could be approved and signed.

Finally, in 2002 the EAAP Council established the EAAP Programme Foundation whose tasks were to stimulate the quality of scientific programs of the Annual Meetings and to ensure that science meets societal needs.

It was supporting invited speakers with a high international profile by funding part or all registration and travel costs.

Its aim was also to support scientists from less favored areas by offering scholarships to attend the EAAP meetings and to provide prizes for best presentations of young scientists.

The Board of Trustees watched over these aims and sought for sponsors. The Foundation functioned under this name until 2013 when it was replaced by the 'Friends of EAAP' system with different objectives and goals.

## **11.5 Sponsors of EAAP**

EAAP offered the opportunity to industries to receive services from EAAP for a fixed sponsoring amount of support every year.

Through a structure named "Friends of EAAP", the group of supporting industries are layered in three categories: 'silver', 'gold', and 'diamond' level.

The system offered an important discount (one year free of charge) if the sponsoring industry would agree for a four-year period.

Services offered by EAAP included creation of a scientific network (with Research Institutes and Scientists) around Europe, creation of a permanent Board of Industries within EAAP also to propose industry representatives for the Study Commissions and organization of targeted workshops, proposed by industries.

EAAP also offered to represent and facilitate activities of the supporting industries toward international legislative and regulatory organizations, and to facilitate the supporting industries to enter in consortia dealing with internationally supported research projects.



## **11.6 Reserves**

Although the level of reserves varied due to the variations in budget surpluses and losses caused by the writing off of bad debts and un-planned expenditures, total funds and reserves have been kept within the targeted amount of an average annual expenditure.

Since 2008 the EAAP reserve fund doubled thus keeping the organization at the safe economic level.

## **11.7 Auditing EAAP finances**

On the basis of the request presented at the General Assembly held in Copenhagen in 2014, to appoint external auditing of the EAAP accounts, the Council decided to engage ACG Auditing and Consulting Group s.r.l. as the EAAP external auditor. Since the engagement of the external auditor the Board of Auditors, in addition to its own findings in inspecting the EAAP finances, relied also on findings of the external auditor. This service is in addition to the audit performed by the official EAAP Board of Auditors.

# **12. The dynamism of EAAP**

## **12.1 New focus**

The EAAP Annual Meetings and other activities carried out by the Federation reflected the state of the art in the European animal science, as well as global and regional trends in animal production. On the other hand, the EAAP programs and activities influenced, to a certain extent, the orientation of national research by offering a platform for exchange of experiences and information and for joint research programs as is the case with the EU funded projects.

Animal science, like science in general, is coming under increased scrutiny by the public. Consumers, public opinion and national and regional policies play an important role in identifying priorities for public funding. Among other factors, the case of BSE, growing public concern for the environment, food safety, food quality and animal welfare, greatly influenced themes and objects of animal research in the past two decades. In line with changes in the environment in which the European animal scientists operate, the EAAP adjusted its programs - from emphasis on themes of the growing importance of animal production and

consumers to adjustments in the forms of action, new publication policy and to embarking on the participation in the EU projects. The main achievements in the past twenty years could be summarized as follows:

- improvements and changes in the content and organization of Annual Meetings as proposed by the Forward Looking Group and consequently approved by the Council and the General Assembly
- strengthening the role of Study Commissions as drivers of the scientific initiatives of EAAP, by representing views and aspirations of animal scientists in Europe and also by being the focal points for their disciplines
- regulation of the management and decision-making process in Study Commissions
- changes in the modus operandi and the content of activities of Across Study Commissions and Study Commissions Working Groups
- broader orientation towards active participation in the EU funded projects as a partner in charge of the dissemination of information
- establishment of the system for encouragement and stronger reliance on early career scientists in the EAAP activities
- the number of the EAAP institutional Members varied mainly due to financial problems and institutional changes in some countries, while the number of individual members was constantly growing
- dissemination of animal science and related research results to the scientific community and to livestock industries was carried out through publication of the EAAP Scientific and Technical Series, the journal ANIMAL, Advances in Animal Biosciences, the review magazine Animal Frontiers, the EAAP website, the EAAP Newsletter, the system of workshop and symposia, websites and newsletters within the EU funded projects, Twitter and the EAAP Facebook pages.

## **12.2 Themes of the Annual Meetings, symposia and workshops**

Themes of the EAAP Annual Meetings held during the past two decades clearly illustrate programmatic orientation and priorities of animal science in the EAAP area. Food quality and safety was the central theme of three Annual Meetings, another three meetings focused on sustainability and the environmental aspects of livestock production, one on farm animal biodiversity, one on well-being of livestock farmers and one on the impact of political changes in Europe.

Research papers presented at sessions of Study Commissions and symposia held within or in connection with annual meetings covered a number of important

issues such as the impact of climate change on livestock, livestock production in transition countries, impact of the BSE crisis, local breeds, animal welfare and livestock in harsh environments.

### **12.3 Cooperation with animal industry**

Benefits from participation of the animal industry in the EAAP programs and activities have been identified as early as in the time of the establishment of the EAAP as an association of national organizations active in ‘scientific research, experimentation, animal husbandry and technical assistance’ (Article 1 of the EAAP Statute). Efforts to attract the animal industry in general and in particular animal scientists working in R&D units of large private companies and producers’ associations to participate more actively in the EAAP programs has been a constant preoccupation of the EAAP Council.

The first tangible results have been attained in the BABROC project with the involvement of 32 breeders’ associations and organizations followed by sporadic contacts and participation of industry in some specific activities, including their sponsorship and partial funding. EAAP participation in other EU projects, that also included small and medium sized enterprises, has also been a good form of cooperation. In 2007, some representatives of industry supported the organization of workshops held in connection with the 58<sup>th</sup> Annual Meeting (Dublin, Ireland). Following the first structured meeting of EAAP officials with representatives of industry held in 2007, EAAP - Industry meetings and workshops have become a good tradition and a regular feature of programs of the EAAP Annual Meetings (industry meetings in Barcelona and Crete, seminar on patenting in Crete, the industry seminar in Stavanger). The new system of operation of Study Commissions included industry representatives as members of the management boards.



*Social Event at 2017 (Tallinn) Annual Meeting*

## 12.4 Individual participation to EAAP

Animal scientists and professionals participate in EAAP activities as members of their respective National Member Organizations. The attendance of over twenty thousand participants at the Annual Meetings during the past two decades indicate the importance and relevance of the EAAP programs and activities. The introduction of the individual membership sometimes as a form of double membership - of a national association and of the EAAP - and its link with specific benefits, such as reduced registration fees and reduced subscription for the animal journal, has already strengthened the feeling of belonging to a large family of European and Mediterranean animal scientists.

## 12.5 New services

In the past two decades, the EAAP established several new services for Members and the community of the European and Mediterranean animal scientists. These are:

- Individual membership for scientists and professionals from the EAAP area and the world
- Young Club of early career scientists
- *animal* Journal
- Animal Frontiers
- Publication of Technical Series
- Publication of Advances in Animal Biosciences
- Coordination and participation in the implementation the EU research projects
- Dissemination of information related to EU projects and action programs
- Electronic form of the Book of Abstracts
- PDF files of presentations at the EAAP Annual Meeting
- Restricted site on the EAAP web site for registered scientists and individual members
- Patent Sentinel and Action Service (PSAS) with its inter-active web site for the use by scientists, breeders' associations and industry
- Improved website, websites of Study Commissions
- Distribution of the Newsletter twice a month to over 3800 addresses
- Use of social networks for dissemination of information
- Organization of industry workshops

- New structure of Study Commissions, direct influence of animal scientists, young scientists and representatives of industry in the planning and execution of scientific programs of Annual Meetings
- Exchange of speakers at scientific events organized by ASAS, ALPA, CSAS and ADSA;
- Joint individual membership of EAAP and ASAS for scientists and professionals outside USA and the EAAP area.

## **12.6 Improvements of the EAAP structure**

### **12.6.1 New Commissions and Working groups**

EAAP must continue to be useful for animal science and livestock industry network and therefore must follow, and sometimes predict, the changing world. For this reason, the General Assembly and the Council established three new Commissions: Livestock Production Systems, Precision Livestock Farming and Insects.

There were also established five new working groups: Ethics, Welfare, Aquaculture, Camelids and Livestock Production in Mountain Areas in 2018. In addition, the Council closed the WG's on alternative production and higher academic education in 2004.

### **12.6.2 Amendments to the Statutes**

The EAAP Statutes have been amended by the introduction of the fellowship of the Association as a form of individual membership and of the right to the Council to accord the Leroy Fellowship and Distinguished Service Award. In 2014, the General Assembly approved changes in Article 17 of the Statute relating to the composition of Study Commissions as well as other adjustments.

### **12.6.3 Adjustment of Internal regulations – By-laws**

Internal regulations have been adjusted in accordance with the amendments of the EAAP Statute. The Council determined conditions for the approval of individual membership for scientists resident in countries outside the EAAP area, and in 2010 for scientists resident in EAAP member countries.

In 2014, the Council approved changes to the By-laws. They included elimination of the Board, composed of the President and Vice President of the Council, as a governing body and the new structure and management system of Study

Commissions. Terms of reference of the Ways and Means Committee had been amended with the provision related to the financial matters. The decision on the distribution of tasks of members of the Council has become part of the EAAP Bylaws. Council decisions related to the management of Study Commissions was included in the Bylaws in 2016.

#### **12.6.4 New structure of Annual Meetings**

Annual Meetings in 2009 applied the inclusion of satellite workshops, seminars and symposia into the body of meetings' program and new systems of sessions including high quality plenary sessions.

The current structure of Annual Meetings has shown that the new programming structure satisfied needs and interests of the large part of participants, and contributed to an increase in the quality of the event. The application of flexible registration fees made it possible for participants to attend special events of their specific interest. The changed structure of the Annual Meetings was one of the reasons of the increased number of participants.

### **13. Service EAAP s.r.l.**

In 2010, the EAAP Council supported the initiative to establish a limited liability company fully owned by EAAP and managed by all members of the Council to carry out commercial income generating activities within the mandate of the Association. The Council agreed that all members of the EAAP Council should be members of the Management Board of Service EAAP subject to the legal position of some of them as public employees. Those members of the Council who are not members of the Management Board will be invited to attend meetings of the Management Board.

However, it appeared that a major number of Council members were not in a position to participate in governing bodies of commercial companies.

In accordance with Italian legislation, the President of the EAAP took up functions of the assembly of the company, while the Secretary General acted as chief executive. The General Assembly of EAAP and the Council were regularly informed on the financial position and activity of the Service EAAP s.r.l.

The potential of Service-EAAP to provide services to the animal industry and scientists working in private research units, as well as acting as a liaison between EAAP itself and industry and scientists, was fully developed in 2017 when the

company organized several technical workshops for industries active in animal production.



*M. Gaulty, M. Zjalic and A. Rosati at Gala Dinner*

## **IV - TOWARDS MEETING FUTURE GLOBAL AND REGIONAL CHALLENGES**

### **1. Global view**

‘There has been rapid global expansion of production and consumption of animal products which is expected to continue to grow. While traditional livestock systems contribute to the livelihood of 70% of rural poor, increasingly emerging large-scale operations with sophisticated technology and international trade cater for rapidly growing markets for meat, milk and eggs. Increasing productivity - making the most efficient use of the production inputs throughout the whole livestock sector will be fundamental if the sector is to meet the growing demand for quality livestock products whilst minimizing its impact on the environmental and the world’s natural resources’ (www.fao.org/ag/againfo 2011).

The world population has doubled (100% increase) in 40 years from 1959 (3 billion) to 1999 (6 billion). It is now estimated that it would take a further 43 years to increase by another 50%, to become 9 billion by 2042. It is estimated that in 2030 global meat consumption will be 68%, and milk consumption will be 57% higher than that in the year 2000. While production and consumption of milk and milk products in developed countries would remain at the level attained in the beginning of the current century, most of the increase will take place in developing countries.

### **2. EAAP area**

While it could be expected that the global trends would prevail in the eastern and the southern (south Mediterranean) parts of the area in the European Union and other European countries with the similar level of consumption of animal products, trends will greatly depend on specific consumers’ and public demands. The European part of the area will, most likely, remain an exporter of almost all animal products (except beef), the volume of consumption could slightly increase, but the main pressure will continue to be on retail prices, quality and safety of animal products and the way they are produced. This also includes animal welfare, environmental concerns and preservation of biodiversity.

### **3. Animal science and future needs**

Producers and the public expect that animal science develops a sound basis for the adjustment of animal production to the new needs and requirements, in the first



place to conciliate demands for lower price and for increased safety and quality of products produced in systems that respect animal welfare and environmental concerns, including N secretion and GHG production. There is going to be a growing demand for the development of new and improved technologies that respect these demands and expectations, including preparedness of the animal industry to adjust in order to tackle climate change. Increasing emphasis of the public on ethical aspects of animal production and research, as well as the social role of livestock in general, imposes new approaches to production technologies and research methods. The growing role of companion and pet animals should not be neglected. Animal science as a part of the life sciences should continue to strengthen links with science dealing with poultry, bees, aquatic animals and wildlife.

#### **4. The role of EAAP**

The EAAP should strengthen its role of the central European and Mediterranean forum. Therefore, its bodies - Council, Scientific Committee and Commissions - should continue to streamline future programs and activities in the interest of Members, bearing in mind future trends and needs of the society and animal science, in particular food and nutrition security based on food system innovations, sustainable and healthy nutrition, climate resilience and environmental sustainability and resource efficiency.

EAAP is facing several challenges: I. the diffused budget cuts of Ministries of Agriculture that have a negative impact for country members to be able to pay the membership fee; II. the privatization of part of the research activities with consequent budget cuts for scientists to participate to meetings and difficulties to dedicate part of their time to EAAP; III. the diminishing availability of animal scientists to work voluntarily for EAAP; IV. the civil society increased attention and often negative attitude toward animal production; V. the necessity to update the core business to more punctual fields of activities; etc. Still EAAP developed very much in the last years improving the quantity and quality of services, increasing the number of participants to the Annual Meetings and enlarging the participation of young scientists to EAAP life.

## V - Attachments

### 1. Annual Meetings

#### **The 51<sup>st</sup> Annual Meeting:**

#### **Interaction between research and innovation in animal production**

*21 - 24 August 2000, The Hague, The Netherlands*

Research and innovation in animal production have a long-standing relationship: scientific findings are being utilized for the benefit of animal production and developments in animal production trigger new topics for research. The meeting was marked by close cooperation and substantive participation of scientists from the USA belonging to the American Society of Animal Science (ASAS) and American Dairy Science association (ADSA).

In 56 sessions, 795 participants coming from 49 countries tackled a number of issues, some of which proved to be innovative and of great impact on the development of livestock and animal research, examples include: advances in molecular genetics and its application, validation of genetic theory and statistical models, management of health and welfare, common beef breeding and recording objectives across Europe and innovations in transferring research into practice. The Plenary session dealt with innovations in transferring research and with governance of innovation in animal production - new roles for science, business and the public sector. Twelve EAAP scholars attended the meeting.

#### **The 52<sup>nd</sup> Annual Meeting:**

#### **Animal production and food safety and quality**

*26 - 29 August, 2001 Budapest, Hungary*

The special theme sessions covered public perception of animal products and production methods, genetically modified organisms in the food chain and the safety of milk and meat products. In recent years a number of production practices and animal health issues have created negative consumer reaction. Successful communication programs that positively influenced the negative reaction were presented, including those in relation to the situation created by the BSE crisis, as well as systems of quality and safety assurance.

The importance of inspections and new techniques in risk assessment and diagnostics were documented in a number of works presented at the meeting.

The meeting was a good occasion to review problems and achievements in the transition of the livestock sector in Central and Eastern European countries, from centrally planned to a market oriented system, particularly in view of the fact that the first consultation on the animal production sector as affected by the transition took place in Budapest ten years before (14-17 April 1991).

The Round Table centered on the future of livestock in the light of recent crises in Europe. The meeting was structured in 48 sessions. There were 890 participants from 49 countries. Among participants there were 38 EAAP scholars.

### **The 53<sup>rd</sup> Annual Meeting:**

#### **Livestock in a harsh environment**

*1 - 4 September 2002, Cairo, Egypt*

The first Annual Meeting held in Egypt, a country located on the southern bank of the Mediterranean Sea, was an excellent occasion for scientists from this part of the EAAP area to discuss specific aspects and problems of livestock production in the region and to present their research.

464 participants from 54 countries focused on livestock farming systems in a harsh environment and the physiology of adaptation by farm animals including growth, reproduction and milk production in ruminants and growth and reproduction in monogastrics, farm animal health maintenance in harsh environments and use of draught animals in arid farming systems.

New developments in buffalo production were also presented. The Round Table discussed the contribution of goats to mankind. At the session of the Genetics Commission, R. Cardellino informed on FAO's undertaking related to the state of the world's genetic resources.

### **The 54<sup>th</sup> Annual Meeting:**

#### **Product quality from livestock systems**

*31 August - 2 September 2003 Rome, Italy*

The decision to place product quality from livestock systems as a central theme of the Rome Annual Meeting, two years before the similar theme was discussed at the Budapest Annual Meeting, demonstrated that animal scientists from the EAAP area are continuously paying attention to the impact of animal health and welfare on quality of animal products.

Human health aspects of animal products and consumer attitudes were subjects of

several review and research papers. FAO was an EAAP partner in the organization of sessions dealing with these matters. The program included electronic identification in farm animals and traceability of animal products as factors of food quality and safety control and assurance (session organized jointly with OIE and ICAR). The Round Table 'Changing consumers...changing animal production' highlighted some issues related to product quality from livestock systems. Problems of high input production systems, such as metabolic disorders in high yielding dairy cows and non-agricultural use of farm animals, such as use of horses and small ruminants in landscape management were presented in several research papers. The special feature of the meeting was a report of the EAAP Working Group on animal production after BSE submitted by P. Cunningham (Ireland). The meeting was attended by 887 participants (17 students, 36 daily participants and 75 accompanying persons) from 47 countries.



*G. Zervas*

**The 55<sup>th</sup> Annual Meeting:  
Sustainability of livestock systems**

*5 - 9 September 2004 Bled, Slovenia*

The *Plenary Session* on society's needs in relation to animal production systems was an introduction to themes dealing with animal health and welfare in intensive

and extensive systems and with indicators of environmental impact in livestock systems.

Slovenia as a small Alpine country is also known for its exceptional landscapes and grasslands; one session dealt with management of grassland for production, environment and landscape benefits. Bioethics was for the first time included in a program of an EAAP Annual Meeting: thirteen research and review papers dealt with ethical issues in animal agriculture.

The theme of the *Round Table* was 'Europeanisation of animal agriculture: opportunities and menaces'. Altogether, 889 participants, among which 67 students, 93 daily participants and 123 accompanying persons, came from 58 countries. Satellite events included nine meetings, symposia and workshops.

**The 56<sup>th</sup> Annual Meeting:**  
**Impact and challenges of a widening Europe**  
**for animal production and research**

*5 - 8 June 2005, Uppsala, Sweden*

The implication of EU restructuring and free trade on feed quality and safety and quality assurance systems to ensure compliance included a number of papers on the EU policy on food and feed safety, Codex Alimentarius, feed safety in livestock production and on quality assurance programmes.

Diversity of livestock farming systems in Europe and prospective impacts of the CAP reform were discussed in the session on the adaptation of livestock farming systems to EU reform and restructuring.

Other sessions dealt with alternative low input - organic production methods, nutrition and management strategies to improve resources in use in livestock systems, and specialized products to sustain systems and genetic resources.

John Claxton from the European Commission spoke at the Plenary Session on the European research program and animal health.

The Round Table dealt with ethical values and economic goals - conflicts or complementarities in animal production.

Altogether, 1019 participants from 61 countries participated at the Annual Meeting.

Among them there were 56 students, 73 daily participants and 54 accompanying persons.

Satellite symposia and workshops held before and after the annual meeting were attended by 502 participants.

### **The 57<sup>th</sup> Annual Meeting:**

#### **Sustaining production systems to improve the livelihoods (health, well-being, and wealth) of livestock farmers**

*17 - 20 September 2006 Antalya, Turkey*

Among 710 papers distributed in 35 sessions, seventeen papers presented at sessions on the interaction between management, animal health and farmer health and on ethics of sustainability, represented an innovative approach to problems of sustainability of animal farming systems.

Animal production in Turkey and in other countries of the sub-region are characterized by harsh climatic conditions and a great number of small family farms. Sessions on strategies to cope with feed scarcity in a harsh environment and on scale dependent opportunities and efficiency in livestock farm development dealt mainly with problems characteristic for the animal sector in Turkey and in neighboring countries.

Improving meat quality and safety to meet consumer needs was the theme of the Plenary Session while the Round Table dealt with whole food chain approach to meat quality and safety. The meeting was attended by 594 participants.

### **The 58<sup>th</sup> Annual Meeting:**

#### **Sustainable animal production - meeting the challenges for quality food**

*26 - 29 August 2007, Dublin, Ireland*

Three out of 39 sessions were strictly connected with the main theme of the meeting, namely sessions on biological aspects related to milk and meat quality, on productivity aspects related to milk and meat quality and on maximizing forages and pasture use in the diet of herbivores.

In addition, one plenary session dealt with societal and industry aspects of challenges for quality food and several commissions' sessions contributed to the more comprehensive approach to challenges for quality food, such as the session on biology and genetics of udder health.

A session on disease transmission and epidemiology was organized jointly with OIE. Feed for pig health was a theme of the workshop organized by the Pig, Nutrition, Physiology and management commissions. At the special Plenary Session, C. Patermann from the European Commission spoke on the 7<sup>th</sup> EU Framework Programme on Research and on the next EU strategy to support research in animal science.

The meeting was attended 1061 participants, among which were 138 students, 36 daily participants and 59 accompanying persons. Satellite symposia and workshops were attended by 389 participants.



*Best Poster Award with P. Chemineau, P. Garnsworthy and B. Malmfors*

**The 59<sup>th</sup> Annual Meeting:**  
**Efficient and environmentally friendly livestock farming**

*24 - 27 August 2008, Vilnius, Lithuania*

Eighteen papers submitted at sessions on physiological limits to intensive farming systems and on the impact of livestock on the environment, followed by twenty papers presented at sessions on breeding goals including environment behaviour and welfare considerations and on innovations that result in efficient and environmentally friendly farming, gave a comprehensive picture of problems of related to the need to conciliate two opposite concepts - efficiency and protection of the environment.

The Plenary Session gave an opportunity to participants to evaluate cloning of animals from scientific and ethical points of view and to assess the industrial use of cloned animals. The meeting was attended by 727 participants, including 112 students, 25 daily participants and 56 accompanying persons.

## **The 60<sup>th</sup> Annual Meeting:**

### **Biodiversity and sustainable animal production systems**

*23 - 27 August 2009, Barcelona, Spain*

The meeting was marked by the theme of the first among 55 sessions 'Local breeds: what future?', conference on EU policies supporting animal research (J. M. Silva, EU-DG Research), conference on impact of Darwin's theories on livestock breeding, by the attendance of 1551 participants and by 1247 theatre and poster presentations - the largest number of presentations and participants in an EAAP annual meeting.

Participants, among which were 100 students, came from 67 countries. For the first time, the meeting included symposia and workshops as part of the regular program (symposium on protein metabolism and N secretion in dairy cattle, EAAP-ASAS-ADSA symposium on growth and development and the symposium on advances and use of electronic identification) and a meeting with the livestock industry.

## **The 61<sup>st</sup> Annual Meeting:**

### **Impact of food demand, quantity wise, on animal production**

*23 - 27 August 2010, Heraklion, Crete, Greece*

Sixty four sessions included one Plenary Session (interaction between the livestock industry and climatic change), two workshops (biology of lactation and aquaculture), five symposia (ERFP, FAO, and EAAP on adding values to local breeds, environmental impact of animal production, alternatives to castration in pigs, animal derived foods, diet and animal health), one industry session (innovations in feed evaluation) meeting with livestock industry and a session on patenting in animal production.

The workshop on aquaculture recommended the establishment of an aquaculture working group which would deal with research in aquaculture and closely cooperate with other international entities involved in research in the field of production of aquatic organisms and with related EAAP Study Commissions, such as genetics and nutrition.

There were 409 oral presentations and 339 posters. The meeting was attended by the total of 873 participants from 61 countries. A total of 744 attendees were scientists and professionals, 56 were students and 73 were daily attendants. There were also 54 accompanying persons.



## **The 62<sup>nd</sup> Annual Meeting:**

### **The importance of animal production for food supply, food quality and environment**

*29 August - 2 September 2011, Stavanger, Norway*

The program included 63 sessions, out of which there was one Plenary Session on advanced technical innovations to meet demand for animal products, two sessions were on quality of products, along with two symposia on aquaculture and two industry sessions.

The meeting also included a workshop for young scientists on writing and presenting scientific papers, and the EAAP, European Focal Point for animal genetic resources and an FAO workshop on environmental values of local breeds. Participants presented a total of 834 papers (489 in theatre presentations and 345 posters).

The meeting was attended by total of 1078 participants. Among them, 155 were students, 125 one day were participants and 46 were accompanying persons. 850 persons participated in the mid-conference trip and 370 persons in technical tours.

## **The 63<sup>rd</sup> Annual Meeting:**

### **Sustainability and efficiency of the livestock sector**

*27 - 31 August 2012, Bratislava, Slovakia*

There were 871 registered participants, over 500 of which came from the EAAP Member countries.

There were also 69 daily visitors. There were 170 students among the participants. The program was structured in 54 sessions.

Out of 901 submitted abstracts, 473 were selected for theatre and 276 for poster presentation.

The total number of authors was 3.643. The program included four technical tours and the program for accompanying persons.

The program of the 63<sup>rd</sup> Annual Meeting consisted of the Plenary and 59 parallel sessions, including 6 one day symposia, one two-day symposium and three industry sessions.

A number of the sessions were organized in collaboration with EAAP working groups and EAAP EU projects.

## **The 64<sup>th</sup> Annual Meeting:**

### **New challenges facing animal production for diversified territories, market demands and social expectations**

*26 - 30 August, 2013, Nantes, France*

Altogether 1,386 participants attended the 64<sup>th</sup> Annual Meeting, 210 of which were students and 100 of those attended the INTERBULL workshop. Participants came from 64 countries, 87% came from Europe while the largest number of non-European participants came from Brazil, Japan, USA, and Australia. The organization of the 64<sup>th</sup> Annual Meeting was supported by fifty sponsors. The final program comprised of 638 theatre and 572 posters presentations. The program included 70 sessions, a Plenary Session, an Animal Task Force special session, a full day horse technical tour, a joint symposium with INTERBULL, and symposia on carcass meat quality, sustainable animal production in the tropics, feed efficiency and genomic tools and technologies. In addition to a number of other sessions, the Cattle Commission organized a special young scientist's session.

## **The 65<sup>th</sup> Annual Meeting:**

### **Quality and sustainability in animal production**

*25 - 29 August 2014, Copenhagen, Denmark*

Altogether 952 participants attended the 65<sup>th</sup> Annual Meeting, 171 of which were students. Participants came from 61 countries, 84% came from Europe while the largest number of non-European participants came from Brazil, South Africa, Egypt, USA and Australia. Twenty-eight sponsors supported the organization of the 65<sup>th</sup> Annual Meeting.

The program included 56 sessions; two plenary sessions, 6 challenge programs, 7 industry sessions, 5 discovery sessions, 1 young training session, 1 young scientist competition, 31 thematic sessions and 3 free communication sessions. The three most “popular” sessions were: “Sheep and Goat feeding and health”, “Free Communication on animal genetics” and “Sustainable cows, herd practices and product quality”. In addition to a number of other sessions, the Cattle Commission organized a special session with the Cattle Network Working group “Competitiveness of European beef production”.

The Animals Fibre, Eastern Europe and Animal genetic resources Working Groups did not organize any sessions during the current Annual Meeting. The final program comprised of 451 theatre and 333 posters presentations.

## **The 66<sup>th</sup> Annual Meeting:**

### **Innovation in livestock production: from ideas to practice**

*31 August - 4 September 2015, Warsaw, Poland*

There were 1.178 registered participants, out of which 561 were individual members. Participants came from 62 countries. The meeting included four one day and one two-day tours. The Plenary Session was attended by around 650 participants. The most visited sessions were sessions 1 and 8 (Climate smart cattle farming and breeding). The local Industry day was attended by 114 participants. Some 370 participants were registered for the two social events (Warsaw by Night and Gala Dinner).

The meeting was supported by 16 sponsors. The program consisted of 55 sessions, which comprised of the following sessions: 28 top-down, 9 bottom-up, 6 challenge, 4 discovery, 5 industry and 3 other (young scientists' competition) sessions. The program was composed of 504 theatre presentations and 423 posters, from 812 presenting authors. Authors were representatives from 59 countries and from every continent.

## **The 67<sup>th</sup> Annual Meeting:**

### **Sustainable food production - livestock's key role**

*29 August - 2 September 2016, Belfast, UK*

Altogether, 1200 papers were presented through 74 sessions, out of which 21 were theme, 13 industry, 5 discovery, 3 challenge, 3 early career, 14 project based and 13 free communication sessions. The meeting was attended by around 1500 delegates from 66 countries. The main characteristic of the Meeting was the high scientific quality of contributions. The event was supported by 40 companies which donated over £ 150,000.

The structure of the meeting and the high number of participants from a large number of countries facilitated networking and establishment of contacts among scientists. The participation of the high officials (M. McIlveen, Minister of Agriculture, Environment and Rural Affairs and P. Hogan Commissioner for Agriculture and Rural Development) offered possibilities for policy influence.

A total of 1200 papers were presented at 74 sessions, out of which 21 were theme, 13 industry, 5 discovery, 3 challenge, 3 early career, 14 project based and 13 free communication sessions. The meeting was attended by 1462 delegates from 66 countries.



*Z. Barac and M. Zjalic at Annual Meeting*

### **The 68<sup>th</sup> Annual Meeting:**

#### **Patterns of animal production in the development of bioeconomy**

*28 August - 1 September 2017, Tallin, Estonia*

Altogether 1,032 participants attended the 68<sup>th</sup> Annual Meeting. They presented 822 scientific papers, 522 of which were in the form of theatre presentations and 300 in posters presentations. 321 participants went on the Tallinn walking tour, 823 attended the Estonian evening, 366 attended the Gala Dinner and 157 went to technical tours.

There were 976 registered participants, out of which 721 persons registered for full and 59 for one day participation. 138 participants at the INTERBULL meeting registered for full and 58 for one day participation. Participants come from 55 countries, with the largest number coming from France, Germany, and The Netherlands.

The Meeting was supported by 13 sponsors. 51 participants were attending the workshop on Writing and presenting scientific papers.

## **The 69<sup>th</sup> Annual Meeting:**

### **Conventional and traditional livestock systems - new challenges**

*27 - 31 August 2018, Dubrovnik, Croatia*

Altogether 1.180 participants attended the 69<sup>th</sup> Annual Meeting, 220 of which were students. Participants came from 51 countries, 71% came from Europe while the largest number of non-European participants came from USA, Brazil, Canada, Japan, and Australia. The organization of the 69<sup>th</sup> Annual Meeting was supported by 23 sponsors. The final program consisted of 692 theatre presentations.

The program comprised of 71 indoor sessions including a plenary session, an Animal Task Force session, 6 one-day symposia (Animal genetic resources symposium, Cost action Ipema symposium, symposium on insects for feed, symposium on local breeds in pig production I and II, and symposium on multidisciplinary approaches), physiology day, one-day seminar with INTERBULL, and after a long time an Aquaculture session.

In addition to a number of other sessions, the Young EAAP Scientist club organized a special young scientist's session named 'How to design your career for the livestock industry?'. An outdoor session was held in the tent having 452 poster presentations. Before EAAP sessions, three workshops were organized as follows: INTERBULL technical meeting (62 participants), Biology of lactation in farm animals (29 participants) and Writing and presenting scientific papers (56 participants). Social events included the Croatian evening and Gala dinner, as well as a program for accompanying persons. Two full day technical tours Autochthonous breed tour and Aquaculture, and sheep and donkey were available for participants.

## VI - Projects funded by the European Union

### 1. Projects

#### **BABROC - (PHARE BUSINESS SUPPORT PROGRAMME)**

*15<sup>th</sup> January 2001 - 15<sup>th</sup> January 2003*

The first tangible partnership with the European Commission took place only in 1999. During the 50<sup>th</sup> EAAP Annual Meeting in Zurich, the German Animal Breeders' Federation (ADT) together with the EAAP and the Austrian Chamber of Agriculture and Commerce, took the initiative to apply for the international multi-country project under PHARE BUSINESS SUPPORT PROGRAMME.

Call for proposals n: SCR-E/110248/C/G/WW - 'Strengthening the activities of business support organizations in helping CEEC companies adjust to the Community acquis'.

The idea of a project in support of the integration of Central and Eastern European Countries was based on ten years of experience in developing and implementing specific programs and activities in support of the animal production sector in Central and Eastern Europe as a part of the EAAP mandate and mission. 32 project partners were EAAP members and breeders' associations from three EU Member States (ZAR - Austria, ADT - Germany, AIA-Italy), eight candidate countries for the EU membership (Czech Republic, Estonia, Hungary, Lithuania, Poland, Romania, Slovakia and Slovenia) and EAAP as the Project Leader.

The European Commission approved in January 2001 a grant of one million EUR for the project 'Breeders Associations as Business Representative Organizations in Central and Eastern European Countries' - BABROC. Project partners ensured in kind a contribution of over 0.5 million EURO.

The project was completed on 15 January 2003. Some 3.000 local experts and professionals participated in 52 national training activities and workshops covering Acquis communautaire in fields of organization and activities of breeders' associations, marketing and trade in genetic material and slaughter cattle, identification and registration and market regulations and sanitary requirements. Nine international training activities for officials of national breeders' associations covered financial management, consumers' perception, cattle classification and privatization of animal production services.

The project provided an internship for seventeen young experts from CEEC partners at the EU partners and a secondment of 47 high level experts from EU

partners to CEEC partners. CEEC project partners considered that the project facilitated the implementation of Acquis communautaire in the cattle sector in their respective countries. The Council Working Group Cattle Network was established, upon the request of project partners, in order to continue the relationships built up during the 2-year project.

The website is run from the EAAP Rome office. Some residual BABROC funds were used to start it. The EAAP Council at its 101 session (Bled, Slovenia, 12 April 2003) expressed satisfaction in the successful completion of operations and appreciation of the support of the European Union. It praised the EAAP Secretariat for the efficient management of the Project. The project was managed by J. Boyazoglu (project coordinator), M. Zjalić (chief technical officer), C. Mosconi (dissemination of information), V. Vigne, and E. Couto (administrators).

### **EFABIS - A European Farm Animal Biodiversity Information System - (AGRI GEN RES Program)**

EFABIS was initiated in 2002 under a project managed by EAAP, coordinated by the Secretary General Andrea Rosati, and supported by the European Commission within the Infrastructures - Area 14 (QLRT-2001-00026), and then the continuation was financed by the EC in the AGRI GEN RES Programme in 2007.

The objective of the project is to create and integrate an infrastructure of databases to monitor Farm Animal Biodiversity (FAB) in Europe. This project will meet the specific requirements of the European continent as well as the need for full compatibility with the Global Information System (DAD-IS) of FAO. The outcomes of the project will be made available to the widest range of potential users. It will be an important tool in characterization, utilization and conservation of those genetic resources. The project will help rationalize the monitoring of livestock and poultry genetic diversity, and favor a greater awareness of the genetic resources available to the European farmers.

The new European database structure will help the countries in collecting information on the hand and will be integrated with DAD-IS, which is designed to link all parties to the FAO Global Strategy for the Management of Farm Animal Genetic Resources. The infrastructure considered in this project is essentially made of a system of data collection and storage at three levels, the country, the European and the Global Level. FAO has decided to put the program code for DAD-IS into

the public domain under the Open Source Model (OSM). The current regional database will be put on the OSM footing which will allow incorporation of European specificities and at the same time ensure an easy transfer of data to DAD-IS. National databases will be created using the same core structure. An essential aim of the project is to take into account the stage of development reached in the various countries of Europe, and to propose solutions best adapted to their needs and resources. The result will be a well-integrated network, basically relying on the OSM methodology, and therefore developed in close collaboration with FAO. **As a coordinator of the project, EAAP** contributed to the attainment of the project objective - to create and integrate an infrastructure of databases to monitor Farm Animal Biodiversity (FAB) in Europe, meeting the specific requirements of the European continent, as well as the need for full compatibility with the Global Information System (DAD-IS) of FAO.

The outcome of the project has been made available to the widest range of potential users as an important tool in characterization, utilization and conservation of those genetic resources. The project rationalized the monitoring of livestock and poultry genetic diversity, and favor a greater awareness of the genetic resources available to the European farmers. The new European database structure has been integrated with DAD-IS and helps the countries in collecting information on the hand and is designed to link all parties to the FAO Global Strategy for the Management of Farm Animal Genetic Resources.



*R. Niznikowski and P. Chemineau celebrating the end of a day meeting*



## **EFABIS-Net - An integrated network of decentralized country biodiversity and gene bank databases (AGRI GEN RES Program)**

*1<sup>st</sup> January 2007 - 31<sup>st</sup> December 2010*

The continuation of EFABIS was EFABIS-Net, an integrated network of decentralized country biodiversity and gene bank databases - a network of WEB based databases has been created in the EU project “EFABIS - a European Farm Animal Biodiversity Information System” for the recording and dissemination of biodiversity data of breeds in animal agriculture.

The project, coordinated by the Secretary General Andrea Rosati, integrates the historical database from the European Association of Animal Sciences (EAAP) and the worldwide DAD-IS system of FAO in Rome. Its outstanding features are an automatic synchronization of data records across the whole hierarchy at the global (FAO), regional (EAAP) and country level. Furthermore, a generalized strategy has been developed for translation of content and interface into any language in the world using UTF8 encoding for the presentation of any character set like Latin, Cyrillic, Chinese and Arabic. FABISnet is available as Open Source software.

## **GLOBALDIV - A global view of livestock biodiversity and conservation - (AGRI GEN RES Community Program)**

*1<sup>st</sup> March 2007 - 28<sup>th</sup> February 2011*

The GLOBALDIV project, co-funded under the AGRI GEN RES Community Program established by Council Regulation (EC) No 870/2004 - action 067 lasted for 4 years from March 1, 2007 and was closed at the final meeting of project partners held on 9 February 2011 in Lausanne, Switzerland. Seven partners located in three EU countries and three partners located outside the EU participated in this action, including EAAP. Thirty-four associated experts from 11 countries were involved in this action. Among them were representatives of International Organizations (FAO, ILRI, and IAEA). Contacts with the other animal GENRES projects and the FP7 NEXTGEN research project have also been developed.

The GLOBALDIV action concerned a global view of livestock biodiversity and conservation. The outcomes of the project have been disseminated by I. a website (<http://www.globaldiv.eu>) hosting **18 issues of a Newsletter**, downloaded more than 40,000 times; II. **two workshops**: one in Bydgoszcz (Poland) on March 2009

and one in Rome on May 2009 plus a **final conference** that was held in Lausanne on 8<sup>th</sup> and 9<sup>th</sup> February 2011; III. review papers, some of which have been collected in a special issue of Animal Genetics <http://www.blackwellpublishing.com/age> and IV. a number of communications, posters, lectures and seminars.

Three **summer schools** have trained more than 100 students from 32 countries in 5 continents.

GLOBALDIV gave the way to a new project called GENOMIC RESOURCES, funded by the European Science Foundation, coordinated by S. Joost of the Ecole Polytechnique Federale of Lausanne, Switzerland and the participation of 10 Countries. It is ideally the continuation and advancement of GLOBALDIV and focuses on the options offered by next generation sequencing and genotyping technologies in the livestock sector. Unfortunately, Italy was not a founding member state, so EAAP is not participating actively in the project but only through specific actions. Project partners agreed to maintain the network established through GLOBALDIV and continue cooperation through EAAP. **P. A. Marsan** from the Catholic University of Sacred Heart managed the project as a coordinator.

### **YOUNGTRAIN - Advertisement Training and R&D Opportunities in Meat Quality and Safety (FP6)**

*1<sup>st</sup> January 2007 - 30<sup>th</sup> April 2008*

‘Training and mentoring early career scientists from candidate, associated and Mediterranean countries in a whole food chain approach to quality and safety’. The project trained forty early career animal scientists from Central and Eastern European countries and the Mediterranean to ensure that they are fully equipped to take part in future research and development activities in a whole food chain approach to meat quality and safety.

The project organized workshops, seminars and training courses as well as e/ learning system and awareness material that was used for the dissemination of the whole chain approach to meat quality and safety. It contributed to the establishment of informal networks of scientists and institutions, as well as to the broader participation of former trainees in EAAP and other activities within the regional and international research cooperation. Documents developed during the project and information about its developments can be found at the specific website at: <http://www.young-train.net/>. The project was developed and executed by the **EAAP**.

**ALCASDE - Alternatives to castration and dehorning**  
**(Call for tender no. SANCO/2008/D5/018)**

*1<sup>st</sup> January 2009 - 31<sup>st</sup> December 2009*

There is widespread support for the development of high-welfare production systems and in particular reducing the poor welfare implications of the castration of pigs and the dehorning of cattle. The European Union has progressively developed a harmonized legislation (Community Animal Health Policy - CAHP - from 1960) with the aim of maintaining a high status of animal health and welfare. In this context, the overall objective of the project was to develop and promote alternatives to the surgical castration of pigs and to develop and promote alternatives to the dehorning of cattle.

The project provided research results in support of EU policy to promote demand and acceptance by consumers of pig meat from entire males or produced with alternatives to the surgical castration. Also to encourage cattle production systems that do not require the dehorning of cattle. The Consortium undertaking the research and dissemination comprises 20 participant organizations and was coordinated by the **Institut de Recerca i Tecnologia Agroalimentàries** (IRTA) in Spain.

**REDNEX- Innovative and practical management approaches  
to reduce nitrogen excretion by ruminants (FP7)**

*1<sup>st</sup> January 2010 - 30<sup>th</sup> June 2013*

Dairying is an important sector of EU agriculture, but intensification has been accompanied by an increase in nitrogen surplus in the cycle between the animal, the crop and the soil. This has a negative environmental impact on groundwater (pollution with nitrates), surface water (eutrophication) and on the atmosphere (de-nitrification and ammonia volatilization). The EU seeks to stimulate measures that improve the management of nutrients, waste and water, as a start to move to management practices beyond 'usual good-farming practice'.

The objective of RedNEX was to develop innovative and practical management approaches for dairy cows that reduce N excretion into the environment through the optimization of rumen function, an improved understanding and prediction of dietary N utilization for milk production, and excretion in urine and faeces. Dissemination and knowledge interaction used a participatory approach to include the views of stakeholders and recognition of the need to provide support

to EU neighbours.

The project was coordinated by **Ad van Vuuren** from ASG Veehouderij B.V. in The Netherlands and involves 10 partners. EAAP was a leader of the dissemination and training activities.

**ANIMAL CHANGE - An Integration of Mitigation And Adaptation  
Options For Sustainable Livestock Production  
Under Climate Change (FP7)**

*1<sup>st</sup> March 2011 - 28<sup>th</sup> February 2014*

An Integration of Mitigation and Adaptation options for sustainable Livestock production under climate CHANGE project was funded by the FP7 Program of the European Commission and lasted for 48 months from 1st March 2011. It included the participation of 25 partners, from the EU, from non-EU states and international organizations. ANIMAL CHANGE aimed at providing scientific guidance on the integration of adaptation and mitigation objectives and at designing sustainable development pathways for livestock production in Europe, in Northern and Sub-Saharan Africa and Latin America. It informed on public policy development in EU27 and proposed cooperation programs addressing smallholder livestock farming in selected developing countries. The project contributed to the quantification of, and reducing uncertainties in, GHG emissions and assessed climate change impacts on livestock production systems (including grasslands) in study regions, revised estimates of the net greenhouse gas balance of livestock farming systems, in particular by integrating soil carbon sequestration and provided direct support to the design of mitigation and adaptation policy frameworks for the livestock sector. **J-F Soussana** from INRA, France, coordinated the project. EAAP was responsible for dissemination and training.

**EU-PFL - Bright Farm by Precision Livestock Farming (FP7)**

*1<sup>st</sup> November 2012 - 31<sup>st</sup> October 2016*

The objective of the project was to deliver a validated Blueprint for an animal and farm-centric approach to innovative livestock farming in Europe, proven through extensive field studies. The blueprint represents a manual for farmers and their surrounding industry including high tech small and medium enterprises and

other stakeholders. EU-PLF was based on the precision livestock farming concept that represents the continuously automated measurements directly on the animal and its environment. The data can be translated into key indicators of animal welfare, animal health, productivity and environmental impact. The project has been prepared by 18 partners from 10 countries and has been approved by the panel of evaluators with 14.5 out of a possible 15 points. EAAP was in charge of dissemination of information on project activities and results. **D. Berckmans** from the Katholieke Universiteit, Leuven, Belgium, coordinated the project.

## **FABRE TP**

EAAP is a partner in the European Technology Platform on Sustainable Farm Animal Breeding and Reproduction (FABRE TP) - a partnership led by the European industry to enhance the sustainability of animal production in (and outside) Europe through development and uptake of better approaches to animal breeding and reproduction.

The Strategic Research Agenda (SRA) is the key output of FABRE TP.

It summarizes the research and technological development (RTD) priorities for the coming 15 to 25 years, including measures for enhancing networking and clustering of the RTD capacity and resources in Europe.

## **GplusE - Genotype plus Environment, Integration for a more sustainable dairy production system (FP7)**

*1<sup>st</sup> January 2014 - 31<sup>st</sup> December 2018*

GplusE: Genotype and Environment contributing to the sustainability of dairy cow production systems through the optimal integration of genomic selection and novel management protocols, based on the development and exploitation of genomic data and supporting novel phenotyping approaches. It was a five-year project and was executed by 15 research and industry partners. S-EAAP was responsible for dissemination activities.

The GplusE project formally ended on 31<sup>st</sup> December 2018. However, the GplusE community is still active in finalizing, publishing and implementing the results.

The present website will still be active and updated until the end of 2020.

The final conference that will take place will be within the 70<sup>th</sup> EAAP Annual

Meeting in Ghent, Belgium, in August 2019. The GplusE final brochure describing the key results obtained by the GplusE project by the end of 2018 is now online and available in the following languages: English, French, German, Dutch, Italian, Danish, Spanish, Swedish, Polish and Czech. **Mark Crowe** from the University College Dublin, Ireland, coordinated the project.

### **iSAGE - Innovation for Sustainable Sheep and Goat Production in Europe (Horizon 2020)**

*1<sup>st</sup> March 2016 - 28<sup>th</sup> February 2020*

The project iSAGE is making the European Sheep and Goat sectors more sustainable, competitive and resilient. These improvements come from strong collaboration between industry and research institutions. In this collaboration, industry is telling research institutions the challenges and opportunities in the sheep and goat sector in Europe. Together industry and research partners are thoroughly assessing the sustainability of the sector and developing strategies to respond to the identified challenges and opportunities.

iSAGE will assess the sustainability of the sheep and goat sectors in Europe to future challenges such as climate change, food security, resource use efficiency and rural deprivation in marginal regions. Following the sustainability assessment, iSAGE will develop strategies to meet or prevent these challenges. Such strategies will include all levels of the industry including farmers, local populations, consumers, processors and retailers. Industry and research working together will ensure that relevant issues are addressed, and the project outcomes are applicable in practice. EAAP is responsible for dissemination activities.

**Georgios Arsenos** from the Aristotle University, Thessaloniki, Greece, coordinates the project.

### **VetBioNet - Veterinary Biocontained facility Network for excellence in animal infectiology research and experimentation (Horizon 2020)**

*1<sup>st</sup> March 2017 - 28<sup>th</sup> February 2022*

The principal aim of the VetBioNet infrastructure project is to establish and maintain a comprehensive network of pre-eminent high-containment (BSL3) research facilities, academic institutes, international organizations and industry

partners that is dedicated to advance research on epizootic and zoonotic diseases and to promote technological developments. EAAP is responsible for dissemination activities.

The project comprises three types of integrating activities:

- Transnational Access Activities – i.e. providing access to the BSL3 facilities and technical resources of the consortium. This free-of-charge access will be provided to researchers or enterprises proposing a sound project related to epizootic and zoonotic diseases. The detail of this activity is currently being finalized and will appear on the TNA calls section shortly.
- Networking Activities to foster the cooperation between project partners and to forge cooperative relationships with other European or international research initiatives, industrial stakeholders, international organizations and policy makers.
- Joint Research Activities to improve the scientific and technological standards of services provided by the consortium VetBioNet which assembles 28 partners from 12 different countries.

**Frederic Lantier**, INRA, France, coordinates the project.

## **GenTORE - Genomic management Tools to Optimize Resilience and Efficiency (Horizon 2020)**

*1<sup>st</sup> March 2016 - 28<sup>th</sup> February 2020*

The project GenTORE is a H2020 project that aims to develop innovative genome-enabled selection and management tools to optimize cattle resilience and efficiency (R&E) in widely varying and changing environments.

These tools, incorporating both genetic and non-genetic variables, will be applicable across the full range of systems (beef, milk and mixed), and will thereby increase the economic, environmental and social sustainability of European cattle meat and milk production systems.

To achieve this, GenTORE brings together a multi-actor team:

1) multidisciplinary scientific expertise in genomics, environmental assessment, nutritional physiology, health management, precision livestock farming, mathematical modeling, and socio-economics; 2) partners and stakeholders representing breeding organizations, farm technology companies, farm and veterinary advisory services, and farm sectors (organic, grazing, etc.); and 3) a unique data basis including >1 million genotypes.

These tools are designed to be applicable under commercial conditions at the end of the project.

**Nicolas Friggens** from INRA, France, coordinates the project.



*Gala dinner at Dubrovnik 2018*

### **SmartCow - An integrated infrastructure for increased research capability and innovation in the European cattle sector (Horizon 2020)**

*1<sup>st</sup> February 2018 - 31<sup>st</sup> January 2022*

SmartCow integrates key European cattle research infrastructures, to promote their coordinated use and development and thereby help the European cattle sector face the challenge of sustainable production.

Covering all the relevant scientific fields and the diversity of cattle types and production systems, SmartCow will provide the academic and private research communities with easy access to high quality services and resources. These are needed to develop innovative and ethical solutions for efficient use of animal and feed resources that promote animal welfare and healthy livestock, as well as sustainable competitiveness.

All SmartCow project activities have been designed to ensure the integration, optimal use and joint development of eleven major RIs (18 installations) from seven countries in Europe. SmartCow will combine in a closely co-ordinated



manner: a) Networking activities (NA); b) Transnational access activities (TNA); c) Joint research activities (JRA). EAAP is responsible for dissemination activities. **René Baumont** from INRA, France, coordinates the project.

### **SMARTER - Small Ruminants breedings for efficiency and resilience (Horizon 2020)**

*1<sup>st</sup> November 2018 - 31<sup>st</sup> October 2022*

SMARTER will develop and deploy innovative strategies to improve Resilience and Efficiency (R&E) related traits in sheep and goats. SMARTER will find these strategies by: I. generating and validating novel R&E related traits at a phenotypic and genetic level II. improving and developing new genome-based solutions and tools relevant for the data structure and size of small ruminant populations, and III. establishing new breeding and selection strategies for various breeds and environments that consider R&E traits. SMARTER, with help from stakeholders, chose several key R&E traits including feed efficiency, health (resistance to disease, survival) and welfare.

Experimental populations will be used to identify and dissect new predictors of these R&E traits and the trade-off between animal ability to overcome external challenges. SMARTER will estimate the underlying genetic and genomic variability governing these R&E related traits. This variability will be related to performance in different environments including genotype-by-environment interactions (conventional, agro-ecological and organic systems) in commercial populations. EAAP is responsible for dissemination activities.

**Carol Moreno Romieux** from INRA, France, coordinates the project.

### **GENE-SWitCH - The regulatory GenomE of Swine and Chicken: functional annotation during development (Horizon 2020)**

*1<sup>st</sup> July 2019 - 30<sup>th</sup> June 2023*

GENE-SWitCH aims to deliver new underpinning knowledge on the functional genomes of two main monogastric farm species (pig and chicken) and to enable immediate translation to the pig and poultry sectors. The activation status of functional genome sequences varies across time and space, and in response to environmental perturbations. In full coordination and synergy with global

effort and ongoing projects of the Functional Annotation of ANimal Genomes (FAANG) community, we will characterize the dynamics (“switches”) of the functional genome from embryo (chicken) and fetus (pig) to adult life by targeting a panel of tissues relevant to sustainable production.

New expression QTL data in pigs and existing high-resolution QTL data in chicken will be used for developing innovative genomic predictive models that integrate functional annotations, and these models will be validated in commercial pig and poultry populations. In addition, nutritional epigenetic data will allow evaluation of the influence of maternal diet on the epigenome of the pig fetus and whether such effects persist until post-weaning. These open-shared datasets will conform fully with FAANG standards and add valuable knowledge on genetic and epigenetic variation of functional elements to FAANG. EAAP is co-leader for dissemination activities.

**Elisabetta Giuffra** from INRA, France, coordinates the project

### **BovReg - Identification of functionally active genomic features relevant to phenotypic diversity and plasticity in cattle (Horizon 2020)**

*1<sup>st</sup> September 2019 - 31<sup>st</sup> August 2023*

The BovReg consortium will provide a comprehensive map of functionally active genomic features in cattle and how their (epi)genetic variation in beef and dairy breeds translates into phenotypes. This constitutes key knowledge for biology-driven genomic prediction needed by scientific and industry livestock communities. The BovReg brings together a critical mass of experts in ruminant research and beyond encompassing bioinformatics, molecular and quantitative genetics, animal breeding, reproductive physiology, ethics and social science.

In BovReg we will generate functional genome data based on FAANG core assays from representative bovine tissues and newly established cell lines covering different ontological stages and phenotypes applying novel bioinformatic pipelines. BovReg will establish detailed knowledge on traits related to robustness, health and biological efficiency in cattle. Data, knowledge and protocols will be deposited in European biological archives, aiming to set up and maintain a knowledge hub and establish gold standards. BovReg biology-driven genomic prediction tools will integrate biological knowledge on regulatory genomic variation into genomic selection schemes for local and global cattle populations. This improved knowledge will be useful for re-focussing cattle production, fully taking into account societal

awareness, environmental and animal-welfare aspects and bio-efficiency. EAAP will be co-leader for dissemination activities.

**Christa Kühn** from Leibniz Institute for Farm Animal Biology, Germany, will coordinate the project.

### **PPILOW - Poultry and Pig low-input and organic production systems' welfare (Horizon 2020)**

*1<sup>st</sup> September 2019 - 31<sup>st</sup> August 2024*

The PPILOW project aims to co-construct through a multi-actor approach solution to improve the welfare of poultry and pigs reared in organic and low-input outdoor farming systems. The first originality of PPILOW is the participatory approach, involving all actors of the production chain from farmers to consumers, citizens, scientists and policy makers, for proposing and studying welfare improvement levers. The second originality of the project is to provide a combination of practical solutions for welfare improvement that can be applied on a pan-European basis with specific adjustments depending on citizen's expectations and the target market (national legislation or consumer preferences).

More precisely, PPILOW will co-create with end-users welfare self-assessment tools, innovative breeding and rearing strategies and techniques for improving the welfare of animals by avoiding mutilations (piglet castration or beak trimming in poultry), the elimination of one day-old layer male chicks, favouring positive behaviours, and improving health and robustness in both species. The innovative solutions will be investigated experimentally, and the most promising ones will be tested on-farm. Multi-criteria analyses of the most effective breeding and rearing strategies will then be realised to evaluate their economic, social and environmental impacts based on the 'One Welfare' concept embracing sustainability goals with specific emphasis on animal and human welfare. Business models will be created for the use of high-quality products issued from the adoption of PPILOW strategies to improve welfare in organic and low-input outdoor farming systems for poultry and pigs. EAAP will be responsible for dissemination activities.

**Anne Collin-Chenot** from INRA, France, will coordinate the project.





**EAAP**

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