

### Outgoing President's Message

## **EurAgEng: Challenges and Trends in the Period 2002-2004**

**Prof Daniele De Wrachien**



EurAgEng was formally launched on 1 January 1992 as the regional association of agricultural engineers for Europe, within the CIGR networking system. The number of EurAgEng members increased constantly over the years, now standing at 2350 from 18 national societies, plus 4 countries as affiliate members. In addition there are personal members in 20 countries. Recently a new student membership scheme has been introduced to encourage young people to join the Society.

### **Challenges**

Nowadays EurAgEng is facing unparalleled challenges, due to the decline of agricultural engineering in many parts of the world. What people want can be summarised as follows:

- Less soil, air and water pollution;
- A high level of quality in agricultural production;
- Safety and quality along the food chain.

It is believed that the term *food* is more appreciated by the public than *agriculture*. So we must convince public opinion that agricultural engineering is central to food production. To take all these concerns into account the Society must develop new fields such as biosystems and environmental engineering, and undertake new initiatives, mainly:

- Increasing public awareness of agricultural and biological engineering as strategic measures for environmental protection and quality in the food chain;
- Recruiting students and training of researchers;
- Having agricultural and biological engineering specifically mentioned in the EU framework programmes.

The tools by which the Society will face and cope with these challenges are outlined in this article.

### **SIGs and Fields of Interest**

This framework, made up of 20 Special Interest Groups (SIGs) assembled into 9 Fields of Interest (Fol), represents the backbone and the nervous system of EurAgEng. Its aim is to monitor the most important events and activities in agricultural engineering, forestry and food processing in Europe and elsewhere. The Society has to be ready to create new SIGs at the boundaries of biosystems and engineering (food chain

and traceability, landscape) and, if necessary, discontinue those which no longer meet a need.

### **Education**

In order to harness the opportunities of emerging technologies in agriculture, a broad-based approach is needed that includes educational curriculum reform and re-orientation of the research agenda from the historical emphasis on machines to information, biosystems and process engineering. The Thematic Network on University Studies of Agricultural Engineering in Europe (USAEE), supported by the Society, has the aim of developing basic core curricula in biosystems and agricultural engineering recognised at a European level. Such curricula must meet two requirements:

- (a) FEANI criteria for programmes of studies in engineering, and
- (b) EurAgEng criteria for agricultural sciences.

### **Involving Industry**

Links with industries and other professional organisations are vital for the development of the Society. To this end, EurAgEng has established the Industry Innovation Award for those companies whose engineers present a winning paper on innovations that have a potential major impact on the agricultural engineering industry. These links have to be encouraged and enhanced.

### **Publications**

*Biosystems Engineering* is the official scientific journal of EurAgEng and the preferred channel for publishing significant research achievements. The journal is expanding in prestige and number of articles published every year. Moreover, the Society regularly issues newsletters and manages a website, which provide useful information and keep members informed of activities and matters of interest.

### **Relations with other organisations**

The increased needs for food, fibre and energy for a growing world population present a great challenge to agricultural engineering. These needs must be met in a sustainable way, preserving resources and the environment for future generations. To accomplish this, truly international cooperation is required, with information being freely exchanged and disseminated. In 1999 EurAgEng and ENGAGE agreed to merge. Thenceforth ENGAGE has become the strategic

continued on page 2

division of EurAgEng and its Chairman is appointed as a Vice President of the Society.

Links with six other like-minded regional and world-wide organisations (AESEE, CIHEAM-Bari, CIOSTA, ESA, ICID and IUSS) have been established and Memoranda of Understanding (MoU) between EurAgEng and those organisations have been signed during the last two years, widening the reach of the Society and creating new opportunities for cooperation. The MoU have been publicised in the newsletters and webs of the various associations. The agreement with AESEE differs from the others, in that the long term aim of AESEE is to become a full member of EurAgEng. Moreover, the founders of the FAO-CIGR Global Network on Agricultural Engineering have accepted EurAgEng as the first regional cosponsor of the system and an agreement to this effect was signed in Rome in April 2003.

#### Further steps

In the years to come, agricultural engineering will lie to an increasing extent at the interface between biosystems and engineering science and technology. This will require broadening our outlook, skill and

image beyond the current agricultural and industrial trends, to grasp the opportunities of an emerging knowledge-intensive agriculture. EurAgEng is committed to working in this direction, and to enhancing effective communication systems with other organisations impinging on similar issues, at both the European and world-wide levels, in a responsible and efficient manner, thanks to the people who belong to and work for the Society.

#### Acknowledgements

At the end of the AgEng 2004 Conference, I will step down as both President of EurAgEng and Chairman of the Fields of Interest. My years have been thrilling (at least for me) and thriving (I hope for the Society) years and I would like to thank you all for your support and encouragement. I will leave the Presidency of the Society and the Chairmanship of the FoI in the hands of Bill Day and Aad Jongebreur respectively, and ask you to support them, as you did me. A last but specific thanks goes to my close friend Michael Hurst, who from the very beginning to the last day helped me honour my commitments by providing advice and assistance. Mike, thank you.

---

## International Conference on Energy Efficiency and Agricultural Engineering

Prof Nicolay Mihailov, President of AAEESE and Chairman of the Scientific Committee

Prof Daniele De Wrachien, President of EurAgEng



The Second International Conference on Energy Efficiency and Agricultural Engineering (EE&AE) organised by the Bulgarian National Society of Agricultural Engineers "Engineering and Research for Agriculture" (ERA), CIGR, EurAgEng, AAEESE, the Union of Scientists-Rousse, the Federation of the Scientific Technical Unions-Rousse and "Angel Kunchev" University of Rousse, was held in Rousse, Bulgaria on 3-5 June 2004.

There were representatives of 21 countries from Europe, Asia and Africa and over 120 papers were presented. This allowed the structuring of one plenary session and three parallel sections, namely Renewable Energy and Advanced Technologies, Machinery and Design, Appropriate Mechanisation and Technologies in Agriculture. For the first time a section was formed for students and young researchers. All the sections were led by teams of international scientists.

The importance of the event was underlined by the presence of the Secretary-General of CIGR, Prof Peter Schulze Lammers, and the President of EurAgEng, Prof Daniele De Wrachien, as well as the Chairmen of the National Societies of Agricultural Engineers of Turkey, Romania and Serbia. The

presence of representatives from the agricultural engineering industry suggested that the outcomes of the papers will be put into practice. The celebration of the 30th anniversary of the Faculty of Electrical and Electronic Engineering at the University of Rousse contributed to the special atmosphere of the whole event.

Two Round Table meetings were held during the conference. The participants agreed to strengthen their efforts to concentrate conferences in the region of South-Eastern Europe and to attract larger international audiences from other countries, particularly from neighbouring and western European countries. They decided to resume their Round Table meetings in February 2005 at the 33rd International Symposium *Actual Tasks on Agricultural Engineering* in Opatija, Croatia.

The participants expressed a shared interest in a harmonisation of study programmes in agricultural engineering and similar programmes across Europe. Based on a credit transfer system, such harmonisation will effectively stimulate student mobility.

The Presidents of EurAgEng and AAEESE underlined the necessity of strengthening the cooperation between the two regional associations. The next conference, the third on EE&AE will be held in 2006.

## **A New Qualification for Environmental Professionals** **Chris Whetnall, Chief Executive - UK Institution of Agricultural Engineers (IAgrE)**



IAgrE, the UK's leading society for professionals working in the land-based sector and one of the founding fathers of EurAgEng, is pleased to announce the launch of a new professional qualification for environmental professionals.

As a founding Constituent Body of the new **Society for the Environment (SocEnv)**, IAgrE has been working together with a number of other UK bodies to create the new qualification of **Chartered Environmentalist (CEnv)**.

SocEnv was established in 2000, and aspires to be the leading and co-ordinating umbrella body in environmental matters and a pre-eminent champion of a sustainable environment. IAgrE, together with nine other (Constituent Bodies) leading environmental institutions and learned societies will be licensed to grant the new qualification of CEnv to their appropriately qualified individual members.

Between them, the Constituent Bodies have individual memberships comprising over 100,000 practitioners.

The new qualification is an exciting development which will help maintain high standards of practice and ethics across the huge range of environment-related disciplines. In addition, SocEnv continues to attract great support from key players and organisations in the environment sector and will expand its reputation as a champion of sustainable environmental management.

SocEnv fosters a culture of inclusivity and ethical behaviour for the common good. The identities of its Constituent Bodies are maintained, while their primacy as centres of excellence within their fields are recognised and enhanced. New Constituent Bodies with specific technical expertise continue to apply to join SocEnv as full members.

The criteria for CEnv are based on education, training, experience, and professional and ethical conduct. Constituent Bodies of the Society will be licensed to grant the CEnv qualification through a fast track 'grandparenting' process which lasts 12 months, but only those people who are suitably qualified members on the date their Constituent Body is awarded a licence may be fast tracked. Thereafter, applicants will go through the full process, which includes professional review interviews. IAgrE has already started this abbreviated and time-limited process.

Only those who are members of the Constituent Bodies of SocEnv will be entitled to apply for CEnv and in time, the CEnv qualification will become as internationally recognised and respected as Chartered Engineer.

Those members of other organisations within EurAgEng are welcome to join IAgrE (or one of the other SocEnv Constituent Bodies) if they wish to access this new qualification. For further information, please visit the IAgrE website <[www.iagre.org](http://www.iagre.org)> or email <[crw@iagre.org](mailto:crw@iagre.org)>

---

## **Awards for Innovation**

The AgEng conferences are well attended by researchers and academics, and have built up a good reputation for quality and diversity. To widen the appeal of the conferences to engineers in industry, the **Industry Innovation Event** has become a regular feature since AgEng2000.

Companies are invited to present papers at the Innovation Event on innovative products they have developed for the agricultural engineering industry. The entries are judged by a team from

EurAgEng on their content and delivery, and the winners receive the **Industry Innovation Award**.

This year the Event will build on the successes of those in 2000 and 2002. The entries have been through the first stage of assessment and the two best will be presented as papers at the **Industry Innovation Event on Wednesday 15 September at 16.00**. Everyone is invited to come along.

---

## **Do you need staff?**

If you look at the EurAgEng web site <[www.eurageng.net](http://www.eurageng.net)> you will see a section **Job Opportunities**. We have had several advertisements on the site, generating income for the Society. Next time you are recruiting staff, please consider placing an advertisement with us on the web. It does not cost much and it reaches a very wide and appropriate audience. Also, it can be arranged very quickly. Contact Mike Hurst at the address on page 8 if you are interested.

## **4th International Workshop on Research on Irrigation and Drainage**

**Prof Zvonimir Vukelic, Convenor of the Workshop**

**Prof Daniele De Wrachien, President of EurAgEng**

Agriculture will have to meet the future challenges posed by food security by increasing production while conserving natural resources.

In the past, the increased demand for food has been satisfied by the expansion of agricultural land. Today, the availability of new land for cultivation and additional water resources are limited. This means that the traditional methods for increasing production are facing a new challenge: reconciling agricultural development and the conservation of natural resources. Moreover, in the past, irrigation and drainage schemes were designed on the assumption that the current climatic conditions would not change in the future. This will not be so in the years to come, due to the global warming and the greenhouse effect. Therefore, engineers and decision-makers need to systematically review planning principles, design criteria, operating rules, contingency plans and management policies for new infrastructures.

On these themes an International Workshop took place in Skopje, Macedonia, on 24-25 March 2004. The Event was organized as part of the celebration of the World Water Day by the Macedonian National ICID Committee, with the

patronage and scientific support of CIGR and EurAgEng.

The Workshop focused on the following subjects:

- Water resources: availability, planning and infrastructures for multipurpose use and management;
- Irrigation and drainage systems: design, construction, operation, modernisation and rehabilitation;
- Catchment and river hydrology: forecasting, erosion and pollution control;
- Wastewater: treatment, management and environmental impacts.

The Event was attended by more than 100 participants from 22 countries. Fifty one papers were presented in oral presentation or as posters in the two official languages, English and Macedonian.

Workshop Proceedings are now available at the Macedonian National ICID Committee in Skopje. For further information please contact Prof Dott. Zvonimir Vukelic, Chairman of the Scientific and Organizing Committee  
<vukelic@gf.ukim.edu.mk>

---

## **Cooperation between EurAgEng and IUSS**

**Prof Stephen Nortcliff, Secretary-General of IUSS**

**Prof Daniele De Wrachien, President of EurAgEng**

The International Union of Soil Sciences (IUSS) was launched in 1924 under the title ISSS (International Society of Soil Science) with the main objectives of:

- fostering all branches of soil sciences and their applications;
- linking and giving support to soil scientists in the pursuit of their activities.

In 1998, the ISSS was restructured into the IUSS following its admission as a Union member of the International Council for Science (ICSU) in 1993. Over the last few years, EurAgEng has followed a programme of establishing links with like-minded organisations, and as part of that programme, the following agreement has been reached with IUSS:

The International Union of Soil Sciences (IUSS) and the European Society of Agricultural Engineers (EurAgEng) are both international associations with the common aims of:

- setting up and improving networking systems to promote the role of Soil Conservation and Land Use, Planning and Management for Rural

Development and Environment Protection at both European and world-wide levels;

- Seeking cooperation from other regional and world-wide organisations whose interests impinge on similar issues.

In this endeavour IUSS and EurAgEng have reached agreement on close cooperation and mutual assistance for the transfer of knowledge at international level. The Secretary-General of IUSS, Prof Stephen Nortcliff and the President of EurAgEng, Prof Daniele De Wrachien, have signed in Reading (UK) in March 2004, a Memorandum of Understanding which provides for the following:

- nomination of representatives and deputy representatives to each other's relevant decision-making bodies as observers;
- publication of each other's announcements in their own media on a reciprocal basis, free of charge;
- cooperation in the planning and implementation of enterprises of common interest such as research projects, guidelines, workshops, conferences, training courses, etc.

## Members-only pages on [www.eurageng.net](http://www.eurageng.net)

The *Members' Login* on the EurAgEng website gives access to the members' area containing four options:

- view the members' directory
- update your own entry in the directory
- join a discussion forum
- change your password

### Logging in

To log in, enter the first four letters of your surname and your password. Initially your password is the same as your membership number, which is the 4 or 5 digit number on your address label. If you would like a reminder of your membership number, contact Mike Hurst on [secgen@eurageng.net](mailto:secgen@eurageng.net). Once you have logged in, you can change your password to any combination of up to ten letters and numbers.

### Finding members

To search for a particular member, enter the person's surname (or part of it), or the country (or part of it), or the field of interest. The more you enter, the narrower the search will be. A list of members who fit the search criteria will then

be displayed. Click on the surname of the required member to give fuller details. The search facility can also be used to find all the members in a particular field of interest or in a particular country.

### Updating your own membership details

Enter any details which should be changed in the appropriate boxes. When you press the Submit button, a message containing the new information will be sent to the secretariat.

### Changing your password

Enter a new password up to 10 characters long. The new password will take effect immediately.

### Joining a discussion forum

There is a forum for each Special Interest Group and one for all the groups. In addition, there is a general forum for members' discussion. If you would like to create a discussion forum for a new subject, please contact Mike Hurst on [secgen@eurageng.net](mailto:secgen@eurageng.net). There is also a public discussion forum which can be accessed from the homepage.

**AgEng**  
Bonn 2006

## AgEng2006 Bonn Agricultural Engineering for a Better World 3-7 September 2006 Bonn, Germany

The next conference in the AgEng series will be held in Bonn, Germany in September 2006. It will combine the XVI CIGR World Congress, the 64th VDI-MEG International Conference Agricultural Engineering, and the EurAgEng conference AgEng2006. It will therefore be a big one!

Meetings will be held at Bonn University and at the Bundeshaus Bonn which includes the former Federal Parliament building.

The second announcement and call for papers will be published later this year.

## For members

- 1 The journal *Biosystems Engineering* (formerly JAER) is the official scientific journal of EurAgEng. Members are eligible to subscribe to it for their own personal use at the much reduced rate of GBP170 a year compared with the full price of 971euro. More details from the secretariat.
- 2 The *CD of papers presented at the AgEng2000 conference* in July 2000 contains a powerful search facility to search all the papers in just one instruction. There is also a list of authors and other contacts. The CD costs GBP10 including postage. Available from the secretariat.
- 3 *Landwards*, the magazine of the UK Institution of Agricultural Engineers is highly readable, topical and oriented towards users. It is published four times a year and is available to EurAgEng members for GBP30 per year including postage. Contact the secretariat for details.
- 4 *Jahrbuch Agrartechnik / Yearbook Agricultural Engineering 2003* from our Past President, Fred Meier. In German and English, now in its 15th Edition. Normal price is 49euro, but available at a special EurAgEng members' price from Fred Meier on [FHMeier@aol.com](mailto:FHMeier@aol.com).

# University Studies of Agricultural Engineering in Europe: a Thematic Network

Prof Demetres Briassoulis  
USAEE – TN Coordinator



## USAEE

Agricultural engineering is undergoing rapid changes as a result of technological innovation, the dramatic structural changes in the higher educational system of Europe and also because of major inherent problems associated with the traditional field of agricultural engineering studies in Europe and the emerging relevant societal needs. Many universities now use new terms related to agricultural engineering in order to cover the demands of society. The traditional term of agricultural engineering is in several cases replaced by the term *bio-engineering* or *resource systems engineering*, while more and more universities include new discipline-oriented rather than object-oriented courses.

In response to these dramatic changes, the thematic network **USAEE - University Studies of Agricultural Engineering in Europe** has been established in the framework of the Erasmus programme of the EU Directorate-General Education and Culture. The need for a European thematic network on agricultural engineering and related university study programs stemmed from the contemporary chaotic situation of the relevant programs of study, as was clearly described in the relevant report of AFANET-WP3 [1].

### Objectives

One of the main objectives of this project is to identify the new trends within agricultural engineering, and suggest ways in which to incorporate them in the agricultural engineering curricula. The basic goal of the network is the development of basic core curricula in agricultural engineering to be used as a benchmark and recognised at the European level. The establishment of a benchmark serves the purpose of determining a set of criteria/requirements against which any curriculum can be tested and decided whether or not it meets the criteria for admission as a particular programme of agricultural engineering studies in Europe.

The major objectives of USAEE are to:

- Define the core curricula to be used as benchmarks for agricultural engineering studies in Europe. The ongoing development is based on the following requirements:
  - It must meet the FEANI criteria for being an engineering program of studies: this requirement will be elaborated in conjunction with FEANI;
  - It must meet the 'Agricultural Science' core curricula requirements in agricultural engineering. This requirement will be achieved in conjunction with EurAgEng.

- Establish a benchmark core curriculum that serves the purpose of determining a set of **minimum criteria/requirements** against which any curriculum can be tested and decided whether or not it meets the criteria for its admission as a particular programme of agricultural engineering studies;
- Define common accreditation strategies and procedures and establish the bodies/committees to carry out the accreditation of the departments which are to meet the core curricula requirements.

For these reasons three workshops have already been held and three more are planned.

### First workshop

A first workshop (*Current Structure of European University Studies in Agricultural Engineering*, Madrid, 28-29 March 2003) [2] was dedicated to presenting the results of a survey aiming at defining and classifying some fundamental issues in the area of the agricultural engineering studies in Europe. The results of the first workshop support the conclusion that the picture of the agricultural engineering studies in Europe varies drastically from country to country. Furthermore the introduction of the far-reaching changes through recent developments in the higher educational system in Europe has created even more problems and confusion, especially in higher engineering education, because of the peculiarities of this area. The combination of the chaotic situation in the agricultural engineering studies in Europe along with the Bologna convention related major changes of the European higher education system has led to the current crucial transient phase of the agricultural engineering studies in Europe, as depicted in the ongoing restructuring of the programs of studies.

### Second workshop

A second workshop (*Research Activities in European University Institutes of Agricultural Engineering*, Palermo, 26-27 September 2003) [3] was dedicated to presenting the results of a systematic survey on the current status of the research activities carried out in agricultural engineering university departments/institutions within Europe. The second workshop and relevant survey supports the conclusion that the picture of agricultural engineering research activities in Europe varies from country to country mainly within the broader traditional area of agricultural engineering research. The major differences however, concern the funding schemes that differ very much between the various countries and institutions. In addition, some new contemporary and emerging research areas, representing the most recent developments in agricultural engineering research activities in Europe are directly related to the dramatic changes in the agricultural engineering university studies in Europe and worldwide.

### Third workshop

A third workshop (*A Review on the ECTS System*, Dijon, 27-28 March 2004) [4] was dedicated to ECTS and the Bologna implementation in agricultural engineering studies in Europe. It has become apparent that the combination of the official adoption of ECTS along with the implementation of the Bologna system in the framework of the recent dramatic developments in restructuring the higher educational system in Europe has created serious problems of comparability and equivalency and also complications in assessment of typically similar but essentially drastically different programs of studies, as well as of ECTS units and titles offered. It is characteristic that the ECTS system adaptation has not led to an analogous harmonisation but in many cases to a major confusion hidden under a unique nominal credits system: the ECTS.

### The future

Three further workshops are planned, and will address the following issues:

- Agricultural sciences core curricula in agricultural engineering university studies;
- Engineering core curricula in agricultural engineering university studies;
- Accreditation of agricultural engineering university studies.

In view of the evolving dramatic changes in the European higher engineering education and in parallel with the critical changes in the agricultural engineering programs of studies, the relevant trends in the USA are considered to be of exceptional interest for the corresponding restructuring of the university studies of agricultural engineering in Europe. These challenges are already incorporated in the main objective of the USAEE project, which is the establishment of

the core curricula requirements for the evolving agricultural, biosystems and biological engineering university studies in Europe.

### Conclusion

As the weakest part of the current agricultural engineering studies in Europe is the inadequate engineering foundation of the corresponding curricula, the main goals of USAEE are to:

- 1 Enhance the engineering part of the European core curricula in agricultural/biosystems engineering so that it meets the FEANI criteria for being an engineering program of studies;
- 2 Reduce significantly the agricultural or biological sciences part of the European core curricula in agricultural/biosystems engineering to meet the basic fundamental knowledge of the corresponding subjects without extending to, or competing against, or overlapping with the classical agronomy programs of studies.

### References

- 1 Briassoulis, D., Papadiamandopoulou, H. and Bennedsen, B.S. 2001. Towards a European Standard for Agricultural Engineering Curricula. AFANet; Workpackage 3 Agricultural Engineering. KVL, AgroTechnology, Agrovej 10, DK-2630 Taastrup, Denmark.
- 2 Briassoulis D. and Panagakis P. (editors) 'Current Structure of European University Studies'. *Proceedings of the 1st USAEE Workshop*, Madrid, 28-29 March 2003.
- 3 Briassoulis D. and Panagakis P. (editors) 'Research Activities in European University Institutes of Agricultural Engineering', *Proceedings of the 2nd USAEE Workshop*, Palermo, 26-27 September 2003.
- 4 Briassoulis D. and Panagakis P. (editors) 'A Review on the ECTS System', *Proceedings of the 3rd USAEE Workshop*, Dijon, 27-28 March 2004.

---

## Shared Vision at the UNACOMA Vision Event



EurAgEng has organised a competition for young people (aged 35 or under) to give us their views on the future of agricultural and biological systems engineering. The entrants were invited to send a brief description of their vision and from the submissions, two have been chosen to give full presentations at the **UNACOMA Vision Event** at the AgEng2004 conference in September.

The finalists are:

- **Constantino Valero, Pablo Gutiérrez, M<sup>a</sup> Teresa Riquelme, Víctor Gil, Luis Ruiz, Belén Diezma, María Marín, Natlia Hernández and José Rodríguez** of the Polytechnic University of Madrid with a presentation on *Agricultural Transformation Clustered Greenfactories: A Future of Agriculture*.

- **Ole Peters and Christiane Albrecht** of the University of Hohenheim with a presentation on *Autonomous self-helping machine network operating multi-stage and path-planned*.

The winner will receive a generous cash prize from UNACOMA, the Italian Farm Machinery Manufacturers' Association.

At AgEng2002 this event was won by a team of students from The Netherlands who gave an enthusiastic and memorable presentation on robot ants. This year the event will be held on **Wednesday 15 September at 17.00**. We hope that everyone will come along and support the young people.

## The Open Meeting (the General Assembly)

The last meeting on Tuesday at the conference will be the relatively informal **EurAgEng Open Meeting** to be held on **Tuesday 14 September at 17.30**. Everyone is invited to come along.

There will be presentations to members of EurAgEng who have given outstanding service to the Society. The outgoing President, Prof Daniele De Wrachien will briefly review the last two years of

EurAgEng. He will then hand over to Prof Bill Day who will take over as President for the next two years.

The Open Meeting will be a contrast to the more serious technical gatherings at the conference, and the speakers have promised to be brief. It will enable the Society to go forward for another two years up to AgEng2006 in Bonn. Do come along.

---

## Know your SIGs

The Special Interest Groups (SIGs) provide a forum for people with similar technical interests to exchange ideas, keep up to date and meet fellow workers. The main functions of the SIGs are:

- to exchange scientific and technical knowledge through meetings, conferences, seminars, publications and correspondence;
- to provide scientific and technical information in specialist fields through textbooks, standards and guidelines;
- to maintain a register of members interested in the specialist subjects;
- to create, maintain and improve a networking system able to disseminate information and expertise in the various subject areas whilst avoiding duplication and overlap.

The subject areas of the SIGs are periodically reviewed and ideas for new subjects are welcome. Occasionally, where there is no demand for a particular SIG it is discontinued, thus ensuring that the groups remain active and wanted.

The SIGs are grouped into nine Fields of Interest to enable members to enrol in all the groups relating to their interests. Members of EurAgEng are encouraged to register with up to three Fields of Interest and actively participate in them. The success of the SIGs depends on members' participation.

To register your Fields of Interest or change your current registration, please use the members' pages of the EurAgEng web (see page 5) or contact Mike Hurst at the address below.

**Fields of Interest** are in blue, followed by the **SIGs** in black

**AE Automation & Emerging Technologies**  
AE09 Automation & emerging technologies

**AP Animal Production Technology**  
AP01 Aquaculture  
AP06 Innovative technologies for dairy farming

**IT Information Technology**  
IT16 Information technology

**PA Precision Agriculture**  
PA07 Precision agriculture

**PH Post Harvest Technology**  
PH03 Post-harvest technology

**PM Power & Machinery**  
PM04 Forest mechanisation  
PM08 Environmentally safe plant protection systems

PM11 Fruit & vegetable production engineering  
PM23 Energy systems & rural electricity  
PM29 Standardisation procedures

**RD Rural Development & Communication**  
RD01 Agricultural engineering in transitional and developing countries  
RD12 Education & communication  
RD27 Engineering in European Rural Development

**SE Structures & Environment**  
SE14 Air quality in animal houses  
SE15 Farm building structures & environment  
SE22 Greenhouse system design  
SE25 Wastes engineering  
SE28 Rural buildings & landscape

**SW Soil & Water**  
SW20 Soil & Water



---

Published by European Society of Agricultural Engineers, West End Road, Silsoe, Bedford, MK45 4DU, UK  
©2004 EurAgEng. Copyright is waived for translation by National Societies into other languages  
Opinions contained in this Newsletter are not necessarily those of EurAgEng  
Web: <http://www.eurageng.net> Tel: +44 (0)1525 861096  
Email: [secgen@eurageng.net](mailto:secgen@eurageng.net) Fax: +44 (0)1525 861660  
Editor: Michael Hurst ISSN 1462-0669