News from EurAgEng

Summer 2011

From the President

Peter Schulze Lammers, University of Bonn

In February 2011, the Third Agrievolution World Summit was held at the start of the SIMA Tradefair in Paris. The Summit was organised by AXEMA (French agricultural machinery trade association) on behalf of CEMA (the European Agricultural Machinery Association). President Peter Schulze Lammers was asked to give a presentation on behalf of EurAgEng. This is his presentation entitled "Major technological changes in the world agricultural equipment: what path should the sector take?" Other presentations are available at www.agrievolution2011.org.

EurAgEng, the European Society of Agricultural Engineers, was founded as a regional society by visionary engineers in the 1980s. The founding members were mainly engineers educated in their home countries and abroad, so they had an insight of Europe from inside and outside. They felt that it was time to start a European organisation for agricultural engineers. What they founded was a European association of the national societies of agricultural engineering, which are still the major driving force today.

The main activity of EurAgEng is the biannual Agricultural Engineering conference. The last one, AgEng2010, was successfully organised by CEMAGREF in Clermont-Ferrand, France. Most of the universities active in agricultural research in Europe present their studies and research outcomes at the AgEng conferences and contribute to the list of topics when the call for papers is prepared. The conference topics reflect EurAgEng`s fields of interest in European agricultural and biosystems engineering:

- Animal Production Technology
- Information Technology
- Precision Agriculture
- Post Harvest Technology
- Power and Machinery
- Rural Development & Communication
- Structures & Environment
- Soil & Water

Not all national societies cover all the topics. Some of the topics are conventional and reflect current and ongoing research; other topics show new areas of work which indicate that the topic is expanding with new developments and new technologies. Some topics are relatively new, such as precision farming, even though interest in it as a subject can be traced back over many years. Subtopics include innovative technology such as electronic control and environmental issues related to combustion engines. Information Technology is a new topic which overlaps with aspects of precision farming and electronic control. These developments demonstrate that engineering in agriculture is very much linked to mainstream technological development and forward thinking.

> "Engineers need to be linked by a network to sort out what are the useful and applicable innovations in order to develop the technology behind the most successful products"

In addition, the EurAgEng official scientific journal, ***Biosystems Engineering***, is an outstanding journal, scientifically focused, very well cited and recognised by the world community in agricultural engineering and is vital to the recognition and survival of the discipline in scientific circles.

The future path for the production of agricultural equipment seen from EurAgEng's point of view is related to the following aspects. Apart from engineering, producing agricultural machinery is a matter of economic conditions and of societal requirements. The economic conditions are twofold; these relate to farmers as customers and also to the manufacturers. The main issue is the economic situation of farmers, as procurement of agricultural equipment is an investment which depends on farmers' incomes. This has not changed over the years; production and sales reflect the ability of farmers to invest. As a consequence, technical innovations become applicable if and when the economic conditions of the farmers are good and the farm machinery is suited to the structure of agriculture. This means there is a need for equipment for small farms as well as large farms and that not only should key commodities be well equipped with advanced machinery, but specialist commodities and crops such as fruit and vegetables need appropriate machines.

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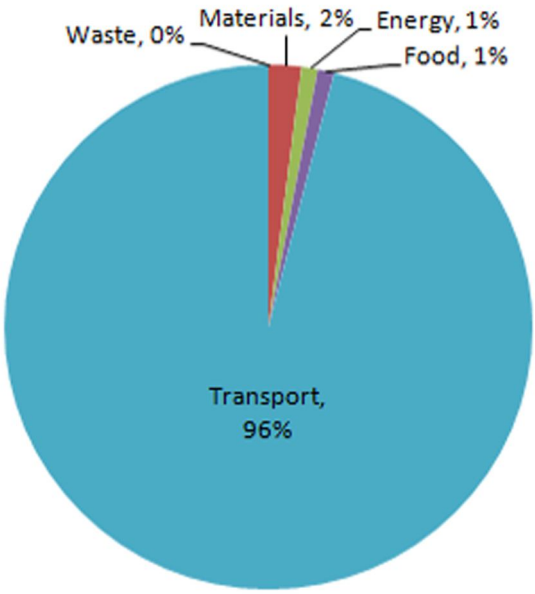
International Conference on Agricultural Engineering
AgEng 2010
Clermont-Ferrand, France
September 6-8, 2010
Towards Environmental Technologies

The AgEng 2010 Conference "bilan carbone"

The Bilan Carbone® is a method well known in France for calculating emissions of CO_2 into the atmosphere. The main aim of Bilan Carbone is to help businesses and public organisations to reduce greenhouse gas emissions. A carbon tax calculated using this tool could be implemented in France soon.

Today, very few conferences publish results regarding their carbon emissions, even though it would help to organise events with less environmental impact. Wishing to improve the environment, Cemagref decided to calculate and publish the results of the "Bilan Carbone" of AgEng 2010, which was held in Clermont-Ferrand in September 2010.



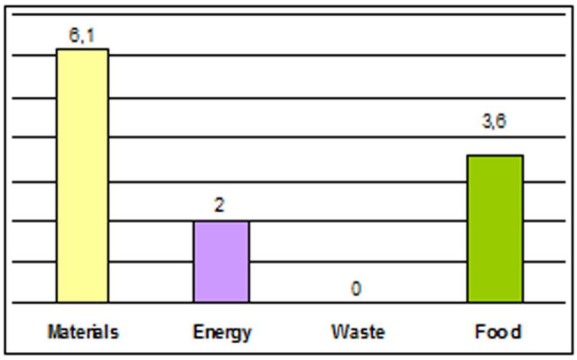
Distribution of the carbon footprint for AgEng2010

In brief

- Three days of conference
- 450 participants
- Surface area of 5,000 square metres
- 1,500 meals served
- 182,000 km covered (4.5 times around the world)
- 46% of the participants came by plane, 42% by car including 28% car sharing, and 12% by train
- Average distance travelled 1,750 km per participant
- Carbon footprint 278 tonnes CO_2 (618 kg per participant)

For the AgEng 2010 Conference, most of the greenhouse gases were emitted by transport (especially as 46% of the participants came by plane). The international dimension of the conference was the main cause of these emissions (36% of the participants came from France, 53% from the rest of Europe and 11% from outside Europe). For local transport, a special effort was made to reduce carbon emissions by suggesting, via the website, hotels close to the conference hall and a free pass for public transport.

Despite the organisation's efforts to reduce these emissions, the global carbon footprint of the AgEng 2010 was estimated at 278 tonnes of CO_2, which is the equivalent of the emissions of 45 French adults in one year at a cost of €5,565.



Distribution of the carbon footprint without transport (tonnes of CO_2)

However other aspects of the conference have to be taken into account, especially as a lot of effort was made in these areas to reduce carbon emissions. For instance, by using a USB flash drive for conference documents, the use of paper was greatly reduced and the menu included meals with less impact on the environment. Also, this bilan carbone has pointed the way to reducing carbon emissions for future AgEng Conferences and other events.

Anaïs Wermeille - CEMAGREF

Cemagref
Sciences, eaux & territoires

For more information about Bilan Carbone® visit: www2.ademe.fr/servlet/KBaseShow?sort=-1&cid=23674&m=3&catid=23675

The Club of Bologna

Prof Dr Peter Schulze Lammers

The Club of Bologna was established in 1989 as an association of experts in mechanisation for the discussion of subjects of international importance for the development of the agricultural machinery sector worldwide. The Club focuses on improving conditions for farmers and society through developments in agricultural mechanisation. It is sponsored by UNACOMA, the association of the Italian agricultural machinery producers. Each meeting discusses viewpoints based on the specific experiences acquired in the main areas of the world and produces conclusions and recommendations for submission to national governments, to international bodies and to research and manufacturing organisations. In the Club, 49 countries are represented and 122 are full members belonging to research bodies (69%), industry (15%) and international organisations (17%).

On 12-14 November 2010, the Club met at the EIMA exhibition, Bologna, Italy. Fifty members of the club representing 15 different countries were present. EurAgEng was represented at the meeting by Peter Schulze Lammers, Laslo Fenyvesi, Pierluigi Febo and Josse De Baerdemaeker. The incoming president of CIGR, Fedro Zazueta, took part in the meeting as well.

The President of UNACOMA, Massimo Goldoni, welcomed the members of the Club and the proceedings were led by President Luigi Bodria. Strategic discussions focused on present and future developments on the use of electric power in agricultural machinery, including electric drives, hybrid systems, and challenges related to acceptance by farmers, manufacturing, standards and compatibility with existing devices. In addition, advances and industry trends in automation of agricultural machinery were discussed, including the impact of advances in knowledge-related fields directed towards higher levels of automation, autonomy, reliability and robustness.

Finally, methodologies were discussed to improve communication amongst researchers and industry, including advancing a database of specialists and agricultural machinery projects. Those working in this area who are interested in participating or being included in this database, please contact Roberto Oberti (roberto.oberti@unimi.it) or Hermann Auernhammer (Hermann@Auernhammer.de)

More information on the Club of Bologna can be found at www.clubofbologna.org where all the Proceedings dating back to 1985 can be viewed.

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from the President

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In addition, the farm equipment of tomorrow needs to advance. New machinery is bought mostly when there is progress, which means advances in function and economics. Furthermore there is no indication that the trend of increasing size of standard machines (tractors, tillage, seeding and harvest machines) has come to an end. These bigger machines are more economic where we have big farms. But major concerns such as environment, food safety, scarcity of water, and soil compaction of big machinery are, so far, problems only partially solved and that have an increasing impact on design and use.

There is no question that this is the century of electronics, which has led to advanced control mechanisms using sensing and information management as tools down to plant level. In future farmers' experience will be improved by high resolution and precise information in real-time and space. This will lead to more efficient and resource-saving farming. We must recognise that relying on farmers' practice and experience is unreliable compared to information and communication technology providing accurate, repeatable information on soil, plant, crop and quality of products as well as their traceability.

This is also the century of global scale with modelling and remote sensing on a large scale being the tools in the real and imaginary modelled world. In the real world electrical drives will become, in my opinion, of major importance to agricultural machinery because smart control used to work at higher precision implies the need for rapid intelligent drives and activators. Hydraulics will not readily fit with these conditions in future.

Also in the future, we will have two sectors in European agriculture demanding equipment. These sectors are the on-farm equipment and the in-field equipment. Linked by information systems and data management through the farm office, these two technical sectors will become crucial in future. It will not suffice to have standardised data and interfaces for each sector but traceability and data exchange in agricultural systems in an entire farm management information system will be necessary.

Human capacity is the source of innovation. Therefore the profession must appeal to youngsters and they need an effective and appropriate education system. Education in engineering has two arms. Firstly it is supported and regulated through the state education system by society and by industry, and secondly the private sector provides practical training and experience. For many years EurAgEng has been active in standardisation and harmonisation of engineering curricula in Europe, which is needed to prepare students for jobs in across Europe. Academic education must have science as a background thus differing from training which provides skills and experience.

The future will be created and designed by well-educated engineers, recognising the demands of society and being able to make use of innovations in science and research. EurAgEng is an interface for science, engineering and technology. Not every invention will become a successful innovation. Engineers need to be linked by a network to sort out what are the useful and applicable innovations in order to develop the technology behind the most successful products.

The German Society of Engineers - VDI - and its Agricultural Engineering Division *Max Eyth Gesellschaft für Agrartechnik*

The current president of EurAgEng, Prof Dr Peter Schulze Lammers together with VDI-MEG executive director, Dr Andreas Herrmann, would like to introduce their national society, the VDI and its division for AgEng - the Max Eyth Gesellschaft für Agrartechnik.

With 139,000 personal members – over a third of whom are students and junior engineers under the age of 33 – the Association of German Engineers (VDI) is one of the largest technical-scientific associations in Europe. As a financially independent, politically unaffiliated and not-for-profit organisation, the VDI is recognised as the representative of engineers both within the profession and by the public.

The VDI covers a wide range of technical topics and communicates this knowledge through studies, through technical discussions and congresses and through VDI guidelines that create generally accepted technical rules. The VDI comprises 45 Regional Chapters and 15 representatives in the federal states that organise seminars and social events.

The VDI Organisation and Structure consists of:

- VDI Technical Societies
- VDI Professional Divisions
- VDI Member Relations (National and International)
- VDI Strategy and Communication
- VDI Companies

The Max-Eyth Society of AgEng in VDI

Max Eyth (Quelle: DLG)

The VDI's agricultural engineering division is a traditional melting pot and contact point for agricultural engineering. It brings together representatives from industry and science, administration and professional farming. The work is done by volunteers in working groups and technical committees. Scientific-technical activities are being developed in the following areas of expertise:

- Agricultural Engineering
- Agricultural Process Engineering
- Agricultural Civil Engineering
- Ergonomics and Labour Management in Agriculture
- Horticultural Engineering
- Renewable Energies and Biomass
- Environmental Engineering including related fields such as Municipal Services and Household Technology

The advisory board, currently chaired by Prof Dr Stefan Böttinger (University of Hohenheim), coordinates the agricultural engineering division. Management of the AgEng division rests with the VDI Technologies of Life Sciences Coordination Office (Dr Andreas Hermann).

History of Max-Eyth-Society for Agrartechnik

The Max-Eyth-Gesellschaft für Agrartechnik (VDI-MEG) is so called because of Max Eyth (1836-1906), the founder of today's modern agricultural engineering in Germany. The initial roots of VDI-MEG lie in the German Society of Engineers (VDI) and the Max-Eyth-Society of Agricultural Engineers (MEG) which merged on 1 January 1995 to create the Max-Eyth-Society of Agricultural Engineers within the VDI (MEG-VDI). Since April 2009, Agricultural Engineering has been an independent division within the VDI Technologies of Life Sciences Society.

Awards of the Max-Eyth-Society

- The ***Max Eyth votive medal*** was instituted by the Max-Eyth-Society of Agricultural Engineers in 1950. It is bestowed by the MEG in recognition of historical advances in agricultural engineering through outstanding individual achievements. European holders of the medal include Josse De Baerdemaeker, Jaime Ortiz Canavate and Margarita Ruiz Altisent.
- The ***MEG award for promising young professionals*** is an award for excellent theses by graduate students in AgEng.
- The ***Ludwig-Wilhelm-Ries-Prize*** is an award for labour management.

VDI-MEG conferences

- ***Landtechnik*** hosted by university venues in even years and in odd years, hosted jointly with EurAgEng in Hannover before the Agritechnica exhibition.
- ***TIER.TECHNIK*** biannual international conference at university sites.
- ***Landtechnik fuer Profis*** the national conference for machinery users such as contractors, profi-farmers and managers of machine rings.

MEG is organised by task forces and working groups

- Programme/Selection/Organising committee Landtechnik
- Programme/Selection/Organising committee TierTechnik
- Programme/Selection/Organising committee Landtechnik für Profis
- Technical committee Ergonomics and Labour Management in Agriculture
- Technical committee Research and Academic Education
- Technical committee Education and Research at Universities of Applied Sciences
- Technical committee International Co-operation in Agricultural Engineering - EurAgEng/CIGR
- MANUFUTURE-Sub-platform Agricultural Engineering and Technologies (AET)
- Working group Promotion of Young Agricultural Engineers
- Technical committee History of Agricultural Engineering

Regional Working groups

- Berlin-Brandenburg AgEng District Association
- Munich, Upper and Lower Bavaria AgEng District Association
- Osnabrück-Emsland AgEng District Association
- Braunschweig AgEng and Mobile Work Machines District Association
- Dresden AgEng District Association
- Halle AgEng District Association
- Cologne AgEng District Association
- Ostwestfalen-Lippe AgEng District Association

Publications

- **Journals**
  LANDTECHNIK is *the* scientific journal of AgEng for the German speaking world. It is co-edited by the MEG and an electronic edition also appears in English. For both renowned authors and ambitious young engineers from universities or research and development departments of manufacturers of agricultural machinery, LANDTECHNIK provides an established platform to publish scientific-technical papers.
- **Scientific Series Research and Teaching Dissertations and Post Doctoral Lecture qualifications**
  Since 1975 the MEG technical committee Research and Teaching has been publishing dissertations and post doctoral lecture qualifications in a scientific series.
- **VDI-Reports**
  Generally, VDI reports include papers published in the context of VDI conferences. Participants receive the proceedings at the beginning of the respective conference.
- **Guidelines**
  The first VDI guideline was published in 1884. The document, on examination of steam boilers and engines, was first issued as part of the scientific journal of the Association of German Engineers on October 1884. It was the launch of VDI Guidelines as an integral part of the German technical-economic infrastructure. Today, approximately 190 guidelines based on the latest technical developments are produced by the VDI's technical divisions every year. In this way the VDI has systematically built up a set of technical regulations which today contains more than 1800 valid VDI Guidelines extensively covering the broad field of technology. Today's topics range from securing loads on road vehicles to testing of optical fibres up to bionics and monitoring genetically modified organisms.

  VDI guidelines can be consulted in various places inside and outside Germany, including university libraries. Some of these Documentation Centres also offer the facility of copying VDI guidelines on licensed VDI copying paper.

Valtra's ANTS

This article has been adapted from a Valtra press release. EurAgEng members may wish to consider and discuss what may be available in the future, what R&D is needed to achieve these ideas, are they practicable and economic, and could this indeed be (part of) the future?

The ANTS concept was built at a scale of 1:5 by Lighthaus of Gothenburg together with Valtra's product development personnel. The model was shown at SIMA and will also be at Agritechnica in November (immediately after the Land.Technik-AgEng 2011 conference).

ANTS is a play on words, with the letters A, N, T, and S used in current Valtra model names while ants are seen as a social insect, strong in relation to their size and industrious, leading to the ANTS concept. There will be some nine billion people living on the globe in 2050 while the area available for arable crops will be less than today. Farmers will need advanced technology to feed this expanding population, and will be producing energy in addition to food. ANTS is dynamic, friendly, customisable, intelligent, agile, and light in comparison to its power.

ANTS is a modular solution. There are two basic modules: The ***soldier***, with a power of 100 kW, and the ***worker***, with a power of 200 kW. Both can act together or work individually. For supervisory tasks there is a cab that can be fitted onto either machine. When executing heavy work requiring the participation of an operator, the modules can be interlocked by moving wheels to narrower and wider tracks to overlap. In this ***queen*** mode, with articulated steering it has a maximum power of 400 kW.

The cab is a capsule that can be attached to either basic module. It can rotate and may be placed at the front, rear or on top of the basic module. The cab may be lowered for safe access; most tractor related accidents occur when getting in and out of the cab. The operator's interface is as simple as is possible with the bulk of the commands given by speech. Information that is important for the task in hand is superimposed as a HUD (heads up display) on window surfaces and the machine has excellent communication abilities. The safety cab has a composite structure and allows an unrestricted view in all directions. The Valtra TwinTrac reverse-drive feature has been developed further since the mobile ANTS concept cab has no distinct front or rear.

Engine and fuel on demand

Energy technology will make huge leaps during coming decades. The transmission will be electrical and power will be produced in various ways: through efficient batteries, fuel cells and turbo generators, or through a highly efficient internal combustion engine that can exploit biogas or biodiesel produced on farms. The power source will have the potential to be changed in a modular way as the need arises.

The structure of the basic machine will be light. Wheels will be set at the end of arms which are also utilised for active suspension and ground clearance adjustment as well as for lifting and lowering implements from and into the ground. Minimum clearance is designed for on-road travel providing the greatest possible stability, while clearance is increased when off-road. The wheels are smart, and their width, or the size of the contact surface, can be adjusted to minimise soil compaction. ANTS will examine soil structure and composition, and automatically optimise its footprint on the ground. As the wheels broaden, the pattern will become more aggressive. However, the wheel surface will be optimised for on-road driving in the narrow position.

There is more detail in the brochure and the video available from the Valtra website www.valtra.co.uk/news/press/4697.asp

Animal Welfare Award for Researchers

Prof Nigel Scollan congratulating Peter Kettlewell and Malcolm Mitchell

Animal welfare researchers, Dr Malcolm Mitchell and Peter Kettlewell, are the joint recipients of an award recognising the significant impact their work on live animal transport has made to the understanding and promotion of good animal welfare. Although based in the UK, they have worked in Europe with EU collaborators. The Award for Innovation Developments in Animal Welfare was presented at the Annual Conference of the British Society of Animal Science (BSAS) in Nottingham and is given jointly by BSAS and the Royal Society for Prevention of Cruelty to Animals.

It is unusual for the award to be presented to two people from different organisations but the organisers felt it was highly appropriate. It not only highlights the benefits to be gleaned from collaborative working between different research teams or individuals, but it also acknowledges and rewards both recipients for the highly significant and productive work that they put into improving animal welfare.

Dr Malcolm Mitchell, a physiologist, joined Scottish Agricultural College in 2006 from the Roslin Institute where he had begun the studies on the effects on farm livestock of transportation and associated conditions. Peter Kettlewell was an engineer at the Silsoe Research Institute until it closed in 2006 and is now an animal transport consultant. Through these changes the pair have managed to continue to find funding to keep much of their joint research going.

Together, they have studied the transportation of many animal species and high profile projects have focussed upon the transportation of pigs across Europe in summer conditions and the imposition of transport stress on poultry carried on trucks in Canadian winters. Their work has led to the development of new vehicle designs and standards and underpinned European legislation. During their research, they also developed a wide range of improved approaches and techniques for assessing and measuring physiological stress responses in a wide range of species, including pigs, sheep, cattle and poultry.

The award was presented by Professor Nigel Scollan of Aberystwyth University and President of BSAS who said: "The impact of their research has been immense. It has informed animal welfare legislation and codes of recommendation, improved commercial practices and procedures, and contributed to advances in the design and operation of livestock facilities, transport containers and vehicles across the EU. Their research has also had an impact on practices in other countries, including Canada, the USA and South Africa."

Both have a long list of papers on animal welfare especially applied to livestock transport and remote telemetry applied to animals. Following a well-received presentation at AgEng2008, Malcolm is hoping to be more involved and support the organisers with a session for remote monitoring of livestock at CIGR-AgEng2012. However, more than this, Malcolm plans to meet many of the Spanish colleagues who have helped in the studies of transporting livestock in high ambient temperatures. Like many attending AgEng conferences, we can expect that there will be technical discussions, ideas for future multidisciplinary projects, reviews of past experiments and experiences and a large amount of laughter and good times in the bars of Valencia!

Don't forget that you can see their full paper from AgEng2008 and check other publications of both of these prizewinners using the Members' section of the EurAgEng website to reach CABI's CABDirect database of Agricultural Engineering and other topics. CABDirect not only covers many countries but it includes papers from lesser known journals and reports originally in languages other than English (abstracts are translated into English). Mitchell and Kettlewell have 18 joint publications in CABDirect and four of those are available as "full text".

Also while in the Members' section you can find Peter's contact details and look for other members. You can find members by name, country or field of interest, all of which are helpful when looking for someone special for a multidisciplinary research proposal or consultancy.

Don't forget that CIGR-AgEng2012 is approaching fast (8-12 July 2012) and the closing date for abstracts to be submitted is much closer, 4 October 2011. See the EurAgEng Events page or go to www.ageng2012.org

Publication of Conference Papers in Biosystems Engineering

Biosystems Engineering is the Official Scientific Journal of EurAgEng and the Editors are always on the lookout for papers of appropriate quality, including papers that are based on presentations made at the AgEng conferences. Of course, such papers would need to pass the Journal's peer review process, by being within the remit of the journal, meeting its standards for novel science and by not having been published before. Prior publication includes any document submitted to the conference and appearing in hard copy or electronic form in conference documentation or on the internet following the conference.

Therefore authors intending to submit their work to the journal after a conference are advised that their conference paper should be confined to **no more than an outline or a preliminary study,** so that the subsequent journal submission is not deemed to be a previously published paper. The passing of copyright to the conference organisers, as happens with the Land.Technik AgEng series, is a further indication that the particular piece of work has been published. A journal submission would be expected to be of greater depth and breadth, drawing more substantial conclusions, and should formally acknowledge any preceding works including relevant conference papers.

Sponsored Events (see www.eurageng.eu/events for a full list)

5-7 September 2011
VI Iberian Congress of Agricultural Engineering
Évora, Portugal
Organiser: Rural Engineering Dept, University of Évora, Spanish Society of Agriculture Engineering, Portugese Specialized Section of Rural Engineering
www.ageng2011.uevora.pt/

21-23 September 2011
11th International Congress on Mechanisation and Energy in Agriculture
Istanbul, Turkey
Organiser: Namik Kemal University
http://trakageng2011.nku.edu.tr/

9-15 October 2011
Synergy and Technical Development II - International Conference on Agricultural Engineering
Szent Istvan University, Gödöllő Hungary
www.synergy.szie.hu

11-12 November 2011
LAND.TECHNIK AgEng 2011
Hannover, Germany in conjunction with Agritechnica 2011 (Preview days 13-14 November 2011)
www.vdi-wissensforum.de/index.php?id=1264 and
www.agritechnica.com

23-24 November 2011
5th International Symposium 'Farm machinery and Process Management in Sustainable Agriculture'
Lublin, Poland
www.kemiz.up.lublin.pl/index.php?id=konferencje

21-24 February 2012
40th Actual Tasks on Agricultural Engineering Symposium
Grand Hotel Adriatic, Opatija, Croatia
http://atae.agr.hr/

29-31 May 2012
4th International Conference on Monitoring, Simulation, Prevention and Remediation of Dense and Debris Flow
Dubrovnik, Croatia
www.wessex.ac.uk

30 May-1 June 2012
3rd International Conference on Flood Recovery, Innovation and Response
Dubrovnik, Croatia
www.wessex.ac.uk

8-12 July 2012
CIGR-AgEng2012 International Conference of Agricultural Engineering 'Agriculture & Engineering for a Healthier Life'
Valencia, Spain
www.ageng2012.org
Submission of Abstracts deadline: 4 October 2011

Other Events (see www.eurageng.eu/events for a full list)

29 June-1 July 2011
XXXIV CIOSTA & CIGR Section V Conference
Vienna, Austria
www.nas.boku.ac.at/ciosta2011.html

10-14 July 2011
8ECPA 8th European Conference on Precision Agriculture and 5th ECPLF Conference on Precision Livestock Farming
Prague, Czech Republic
www.ecpa2011.cz or www.ecplf2011.cz

11-14 July 2011
17th Information Systems in Agriculture and Forestry Conference ISAF
Prague, Czech Republic
www.isaf.cz/

18-20 September 2011
International Bionic Engineering Conference 2011
Boston USA
www.bionicengineeringconference.com

18-21 September 2011
CSAS2011 7th CIGR International Symposium on Cement Based Materials for Sustainable Agriculture
Quebec, Canada
https://www.bioeng.ca/csas2011

19-23 September 2011
WEF 2011 CIGR International Symposium on 'Sustainable Bioproduction - Water, Energy and Food'
Tokyo, Japan
www.cigr2011.org/

29-30 September 2011
Engineering in Agriculture-Diverse Challenges Innovative Solutions
Queensland, Australia
www.engineersaustralia.org.au/seag2011/

4-8 October 2011
RBI 8th Global Conference on the Conservation of Animal Genetic Resources
Tekirdag, Turkey
http://rbiglobalconf2011.nku.edu.tr/

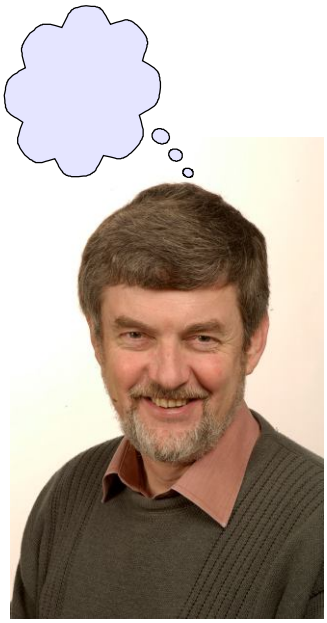
20-25 November 2011
4th International Conference on Engineering and Business Education (ICEBE) and 1st International SAFRI Journey to Excellence Conference
Cape Town, South Africa
http://active.cput.ac.za//ICEBE

6-7 December 2011
EuroCereal 2011
Chipping Campden, UK
www.eurocerealconference.com/

24-28 September 2012
19th ISTRO Conference IV SUCS Meeting
Montevideo Uruguay
www.congresos-rohr.com/istro2012/

16-19 September 2014
The XVIII CIGR World Congress 2014 on Agricultural & Biosystems Engineering - Upgrading Our Quality of Life
Beijing, China
cigrwc2014@yahoo.cn

SecGen's thoughts
David Tinker



Well, the EU proposal was prepared and submitted and life has returned to a more normal pace while waiting for the results. This does allow time to attend other workshops and see what else is going on in the world, but today I had an email advertising the next FP7 KBBE 2012 Info-Day on 15 July! See www.tetalap.hu/biobro2011.

Something else I have just seen is that a group from nine EU countries have formed the Efficient20 project (http://efficient20.eu) and are working with farmers to reduce fuel usage by 20%. The Austrian partners, the Francisco Josephinium Research Institute (and well known to EurAgEng and ENGAGE), are providing information which will form the core technical input to training sessions of pilot groups of farmers. They will record their fuel consumption for a variety of activities to identify where their greatest potential for fuel saving is. Other partners well known to EurAgEng include CEMAGREF from France and IIAE from Poznan. The project is interested in other support and Associated Partners. Follow up the contacts in one of the nine member countries or via the "Contact Us" page of the EurAgEng website.

Nicky and I went to Valencia to meet the EurAgEng Executive and discuss arrangements for CIGR-AgEng2012. The city and conference centre are excellent and the programme is looking very good. Please note the date for submitting abstracts (4 October 2011) and visit the comprehensive website. EurAgEng is also supporting the Field Robot Event in July and then there is the pre-Agritechnica Land.Technik-AgEng conference in Hannover this November. Dates and contact details are on p7 but please pass information on to colleagues and project partners and, most importantly, put the dates in your diary now.

The UK's IAgrE has held a series of workshops on sensors, conservation cropping and how diesel engine emissions impact on filters, auxiliary drives and hydraulics as well as the choice between Exhaust Gas Recycling and Selective Catalytic Reduction. Check out the talks at www.iagre.org and let me know if you have a website with technical links for agricultural and biosystems engineers.

Finally have a good summer and may your field experiments and harvests be successful.

Don't miss it!

The monthly messages sent to members by David Tinker are now the main method of communication with members. Unfortunately, some members do not receive them because we do not have their correct email address, or the message is being rejected by the incoming email system.

It is very simple to update your details with EurAgEng to make sure your email address is correct. Go to www.eurageng.eu click on **Members' Login** and enter your membership number and password. Initially your password is the first four letters of your surname, but you can change your password online if you wish. If you would like a reminder of your membership number, contact David Tinker on secgen@eurageng.eu.

Once you have logged in, click on **Update your membership details** and enter any new details in the boxes. When you press the Submit button, a message containing the new information will be sent to the secretariat. Also, it often helps if you include *secgen@eurageng.eu* in your address book. However, if you do not wish to receive the updates, please send a message to secgen@eurageng.eu with *Unsubscribe to Updates* as the subject heading.

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