

## More Collaboration Makes a Better World

With the summer behind us, COST is gearing up to take part in several activities over the next few months. At the beginning of September, the COST team visited South Africa to join three side events organised ahead of the South Africa - European Union Summit.

The launch of the South Africa-COST partnership is set to boost scientific exchanges between South Africa and Europe. The seminar hosted by the South African Department of Science and Technology and the Swedish Innovation Agency VINNOVA helped increase the involvement of small and medium-sized enterprises in science and technology cooperation.

COST is developing more and more projects that are directly affecting Europe's policies, markets and people. Making food safer and its systems more sustainable are also topics close to the heart of Actions from the FA Domain. Our first success story feature looks at how farmers are turning to science to protect their crops. Representatives from the FA Domain will also join the debate on food security at this year's CABI global summit on food security in a climate of change.

This newsletter also puts our CSO members under the spotlight. Find out more about research needs across Europe and how COST is helping to bridge gaps and increase cross-border collaboration.

Before delving into this autumn issue, catch up on all our other activities and events in the agenda section.

I hope you enjoy this latest issue of COST News.

**Dr Martin Grabert**  
Director of the COST Office



### Portrait

Interview with Stefan Cairén –  
CSO member in Sweden

### COST Activities

Global Collaboration:  
COST Returns from South Africa

FA Success Story:  
How Science is Helping Europe's Farmers

COST Day in Serbia, Paper Week,  
Agenda of Upcoming Events and More...

# COST Information Day in Belgrade

On 2 September 2009, COST and the Serbian Ministry of Science and Technological Development jointly organised the regional COST information day in Belgrade. The main purpose of the event was to present and discuss cooperation opportunities offered by the COST network with a view to stimulate many new proposals for COST Actions from the region.

More than 120 experts attended the conference hosted by the Faculty of Civil Engineering University of Belgrade and sponsored by the Ministry for Science and Technological Development in Serbia.

The COST delegation to Belgrade was headed by Prof. J. Bartzis, Vice-President of the COST Committee of Senior Officials. He illustrated the opportunities offered by COST and confirmed the ever-growing interest from non-COST countries all over the world.

More information followed on the COST Open Call and project assessment. A representative from the Food and Agriculture Domain presented Actions in this area demonstrating their vital societal and economic importance.



Svetlana Voinova (coordinator for Balkan-related COST activities) provided examples of specific COST schemes as well as practical information for neighbouring and non-COST countries.

The afternoon session was devoted to the presentations by the national COST coordinators from the Balkan region. They shared their experience in COST Actions and provided information on national support tools, followed by questions and answers with the Serbian scientific community.

Prof. Biljana Stojanović, COST Country representative for Serbia and Montenegro confirmed the excellent performance of the Serbian scientific community who has taken part in over 85 COST Actions across Domains.

"The Regional COST info day has illustrated the experience of international programmes on a regional level and showed that future cooperation with countries in the region could strengthen. As Serbia disposes of significant research potential ready to start up new projects, the conclusions of the regional COST info day clearly show that cooperation can help increase the number of COST Actions," said Professor Stojanović. She ended the day by encouraging the Serbian scientific community to maintain and possibly increase the fruitful participation in COST activities.

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**More information on joining a COST Action:**  
<http://www.cost.esf.org/participate>

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## News from staff

**Nathalie Warenguien** accepted the temporary position of Receptionist and Office Services Assistant as from 1 August 2009.

**Aranzazu Sanchez** accepted the temporary position of Administrative Officer, and started on 3 August 2009.

**Roberto Alvarez** accepted the position of Business Analyst, starting on 17 August 2009.

**Christophe Saudadier** accepted the temporary position of IT Assistant and started on 1 September 2009.

**Margaret Zajac** joined the COST Office as stagiaire taking care of the Gender Balance Study under the supervision of Caroline Whelan in the Natural Science Cluster, starting on 14 September 2009 and ending on 14 March 2010.

# Stefan Cairén

## CSO representative for Sweden

On 1 July 2009, Sweden took over the Presidency of the EU. For six months, the country will lead the EU's work and be responsible for moving important EU issues forward.

The development of an internal market for research and innovation is high on the agenda. The Presidency hopes to submit a contribution to the European Innovation Plan, with links to the European Research Area. Stefan Cairén, COST Committee of Senior Officials representative in Sweden, draws up a picture of COST activities in his country.

■ **What do you enjoy the most about your role as CSO/JAF member or CNC?**

I enjoy working on the policy issues such as the never-ending development of COST's structure, rules and governance in a changing world, not least in relation to the European Research Area (ERA).

■ **How do you think COST is contributing to building a stronger European Research Area?**

COST is shaping its identity and functionality in relation to other ERA Actors, building efficient synergies with other EU programmes, EUREKA and the European Science Foundation. Literally, this means that COST shall continue to develop its role within the ERA; not too close to other actors (to avoid doing the same things) but not too far from them either (to avoid losing contact and synergies). For COST, this is also a very challenging and a never ending balancing act.

■ **What are the needs within the research community in your country?**

The research community has (had and will of course always have) several kinds of needs. International networking and collaboration are important elements which COST is serving in an efficient way.

■ **Can you give us examples of how COST is supporting scientists in your country?**

COST is quite well-known not only among Swedish scientists, but also at political level, among central agencies and many companies. They all get the highest quality of service through the Swedish COST National Coordinator and The Swedish Agency for Innovation Systems (VINNOVA).



### COST CSO member in Sweden:

**Name:** Stefan Cairén

**Year and Place of Birth:** 1950, Strängnäs, Sweden

**Nationality:** Swedish

**Country where I currently live:** Sweden

**Languages:** English

**Education:** MS

**Current profession:** Deputy Director/Ministry of Enterprise

**Research experience:** R&D programmes since 1984

**When did you join COST?** I have been a COST CSO since 1991-92

Mr Cairén took part in a side event on enhancing SME participation in South Africa and EU science and technology partnerships (see article on pages 10-12).

# Technology is Key to Ensure Food Security

## COST and CABI join forces and turn to technology to address tomorrow's food security crisis

Agriculture is important to food security and is struggling to keep up with growing food demands. To promote its activities in this area of research, the COST FA Domain will take part in the CABI Global Summit – Food Security in a Climate of Change, from 19 to 21 October 2009 in London. As bronze sponsor of the event, COST will look at how Information and Communication Technology (ICT) is helping to find solutions.

As the recent COST Foresight 2030 meeting demonstrated, ICT plays a key role in agricultural development and in ensuring food security. This is one of the topics which Dr Albino Maggio, COST FA Domain Science Officer, will touch upon at a session on 20 October 2009.

“ICT is transforming activities which depend on information and present new, often low cost, opportunities for disseminating and sharing information and knowledge,” says Dr Maggio.

During this session, experts will present an overview of the potential impact on agricultural development and provide information on specific initiatives of interest.

They will also discuss the tools needed to boost agricultural production, address current barriers of ICT in agricultural development and talk about what is needed to overcome them. The panellists will also look at solutions to mitigate the risk of an increase in the agricultural productivity gap as a result of the digital divide and the role of the public and private sectors in coordinating these technologies.

The panel of speakers will include: Dr Anton Mangstl, Director, Knowledge Exchange and Capacity Building Division at the United Nations Food and Agriculture Organisation, Dr Harsha Liyanage, Managing Director, Sarvodaya ICT4D Movement, Mr Theophilus Mlaki, Director of Information, Tanzania Commission for Science and Technology and Dr Elizabeth Dodsworth, Global Director, Knowledge Management at CABI.



“What sets CABI apart, is our ability to make an impact on the lives of millions of people throughout the globe by applying our knowledge and information systems at clear points of need to a wide variety of constituents, including universities, government agencies, foundations, individual professionals and farmers,” explains John Regazzi, Chair of CABI.

A not-for-profit science-based development and information organisation, CABI is helping address the challenges of food security by advising on good agricultural practice and market access. On the global agenda, it is helping educate farmers in Malawi on how to grow better maize, finding a natural control agent for Japanese knotweed in the UK, launching an authoritative internet resource on climate change and much more.

By publishing books, eBooks and multimedia tools that support scientists working on food security, it is also providing information and communication strategies that support farmers, extension workers and governments.

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### More information:

[https://www.cabiglobalsummit.com/delegate\\_landing.aspx](https://www.cabiglobalsummit.com/delegate_landing.aspx) ➔

Find out more about the FA Domain: <http://www.cost.esf.org/fa> ➔

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# Unwrapping the Potential of Paper

Some of us use too much of it, others try to recycle it as much as they can. Even in today's paperless society, demands for tissue and office papers continue to rise. With European Paper Week starting on 17 November 2009, COST is putting pen to paper to address the challenges this growing industry is faced with today.

The COST FPS Domain is organising a COST Exploratory Research and Development Workshop for the paper industry. It will be held in conjunction with the 11th Annual Paper Week organised by the Confederation of European Paper Industries (CEPI).

The objective is to develop more COST Actions in this sector, raise awareness on the topic and encourage more National COST Coordinators to appoint representatives from the paper industry.

## More Action Needed

Produced from a sustainable resource and with a low carbon footprint, paper has strong environmental credentials that are often taken for granted. There is a returned interest for the material. It is seen as a greener packaging option instead of plastic which is derived from fossil fuel.

However, new technologies and approaches are needed to respond to the challenges of climate change, water scarcity and an increase in energy prices.

“Presentations and discussions stemming from the workshop are likely to be of pivotal importance to members of the research community serving the paper industry. It will provide a more defined direction to organisations seeking to support and encourage research activities,” explains Barry Beard, Chair of the Paper Industry Technical Association/Fibre Technology Association. He is involved in the organisation of the workshop.

The workshop will analyse the industry's future research needs. It will be split into several discussion groups focusing on themes such as fibre supply, energy use, carbon footprint and more. Further reports will be carried out by Paper Technology – the UK's Paper Industry Technical Association's journal. This publication is circulated to a global readership in research institutions.

### More information:

For more information regarding the COST Exploratory Workshop, please contact Melae Langbein, e-mail [melae.langbein@cost.esf.org](mailto:melae.langbein@cost.esf.org)



## About Paper Week

European Paper Week is organised by the Confederation of European Paper Industries (CEPI) and takes place in Brussels. This year's edition focuses on “Building on paper's values”.

It is an excellent networking event for the European pulp and paper industry. CEPI will host open seminars providing participants with valuable insights into the topical key issues facing the paper industry.

A number of other key meetings and seminars are organised in the course of European Paper Week by industry sectors and organisations along the paper chain.

### Find out more about this year's Paper Week activities:

<http://www.cepi.org/Content/Default.aspx?PageID=43>

# Read all about it

Every year COST helps to publish some 200 Action publications including final reports. Results featured in these books are often a source of inspiration for industry, policy-makers and other members of society. We have picked our selection for this edition of the newsletter.

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## More information:

Find out more about COST publications at <http://www.cost.esf.org/library/publications>

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## European Forest Recreation and Tourism: a Handbook

After four years of hard work, participants in COST Action E33 have brought together their expertise and knowledge of forest recreation and nature tourism into one book. In recent years, Europe is demanding more from its forests than just timber. The social functions of forests, especially for recreation, have also started to move up political agendas.

Taking in all aspects of forest recreation and nature tourism, the book is made up of several papers and presents case studies from all over the region. This can offer knowledge, education and general capacity to forest managers so they can provide high-quality recreation and nature-based tourism services.

Useful for a wide audience of forest planners and managers, recreation and tourism specialists and landscape planners and designer alike, it gathers insights from the top European specialists on the subject.

Edited by Simon Bell, Murray Simpson, Liisa Tyväinen, Tuija Sievänen and Ulrike Pröbstl

2009, published by Taylor and Francis

ISBN 978-0-415-44363-0

## Detection of Highly Dangerous Pathogens – Microarray Methods for BSL3 and BSL4 Agents

A must-have for public health agencies focused on bioterrorism and all laboratories working with Biosafety level 3 and/or Biosafety level 4 agents. This book is a good starting point for researchers, giving readers a valuable insight into this new and evolving field.

Microarrays are genomic tools originally developed to monitor gene expression, but also applied for detecting specific mutations in DNA sequences and to identify microorganisms.

Leading experts in this field offer a unique and comprehensive overview of how microarray technology can be used to safely tackle the most highly dangerous pathogens. Chapters also cover actual general knowledge on DNA microarray technology and give further information on the development and application of microarray-based procedures.

Edited by Tanja Kostic, Patrick Butaye and Jacques Schrenel

2009, published by WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim

ISBN 978-3-527-32275-6

## Water in Road Structures – Movement, Drainage and Effects

Seen as one of the important outcomes of COST Action 351 WATMOVE, this latest report looks at the relationships between water and highways. Understanding how water affects what is beneath our roads is crucial to improving their performance and sustainability.

Starting with a brief review of the history on how European pavements were constructed some 3500 years ago, the book goes on to explain techniques to monitor water flow, suction pressures and contaminants in water. It looks at where the water comes from and how it is drained, the effect of temperature on the movement and how this can be modelled electronically.

It draws on information from a wide variety of sources in Europe and the United States and includes contributions from a broad team of practicing engineers, hydro-geologists, environmental scientists and researchers.

Edited by Andrew Dawson

2008, published by Springer.

ISBN 978-1-4020-8562-8

### Landmarks – profiling Europe’s Historic Landscapes

Between 2003 and 2008, COST Action A27 set out to understand the pre-industrial structures in rural and mining landscapes. This book testifies the achievements so far, looking at Europe’s rich history of rural and mining landscapes. It identifies pre-industrial elements within the European landscapes which are under threat due to the abandonment of traditional agricultural and mining activities.

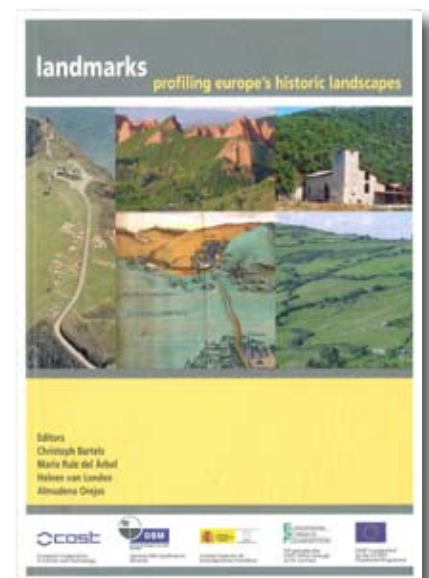
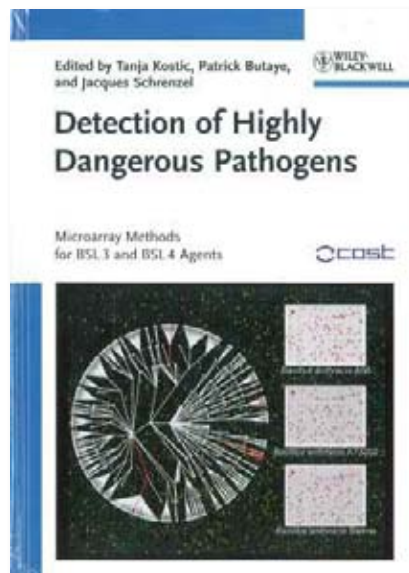
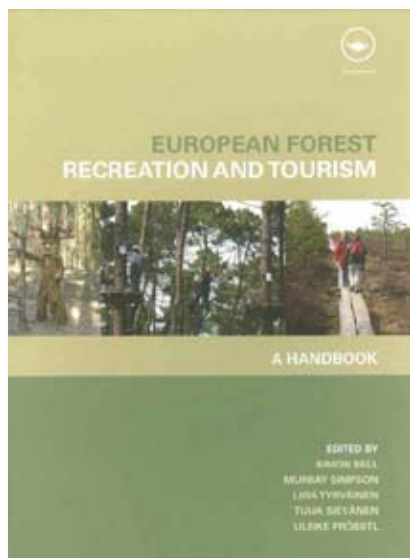
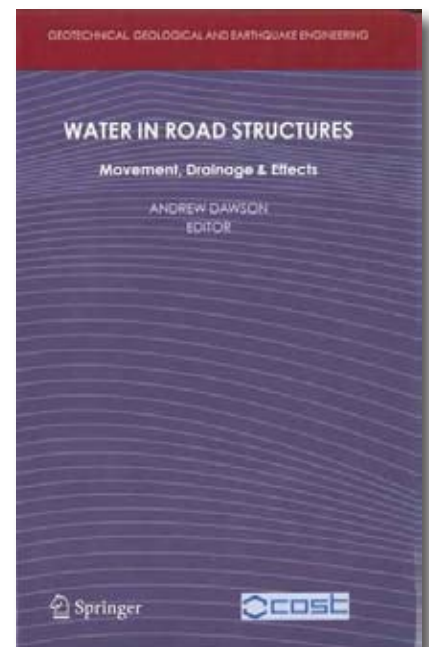
Several case studies give readers the chance to find out more about landscape projects across Europe in the hope of encouraging initiatives in the field of landscape research and valorisation and, importantly, to enhance the protection of historic landmarks.

The examples covered in this book also show the ongoing efforts in Europe to analyse, evaluate and mobilise the values of our landscape for inhabitants and visitors to Europe’s regions.

Edited by Christophe Bartels, María Ruiz del Àrbol, Heleen van Londen, Almudena Orejas

2008, published by Selbstverlag des Deutschen Bergbau-Museums Bochum

ISBN 3-937203-33-8



# How Genomics Can Help Farmers

## COST scientists turn to genomics – digging for solutions to beat plant parasites, helping farmers protect their valuable crops

Keeping crops healthy is a costly business for farmers worldwide. Plant parasitic nematodes or roundworms are responsible for global agricultural losses estimated at over \$ 100 000 million annually. To add to the challenge, recent EU restrictions on certain chemicals mean farmers are calling for effective and more environmentally acceptable ways to protect their crops.

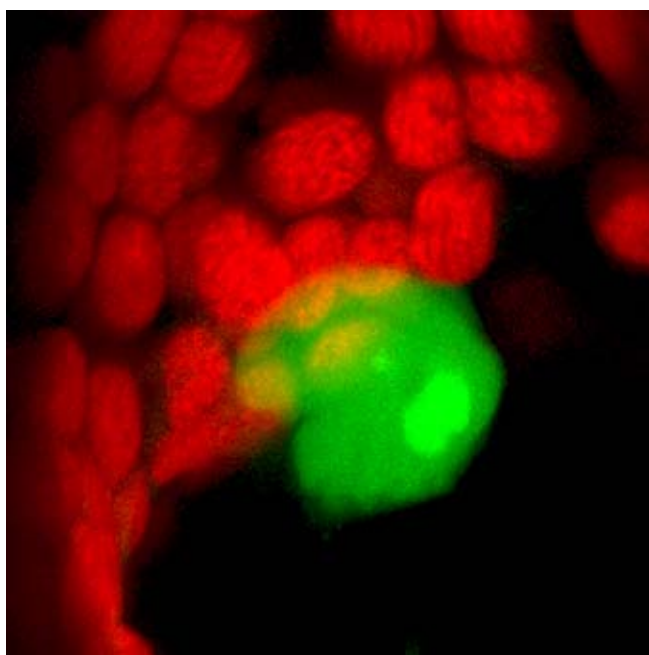
These issues brought together researchers involved in COST Action 872 Exploiting Genomics to Understand Plant-Nematode Interactions. The project has not only helped bring about advances in research but it has also trained early stage researchers on new techniques in the field.

Biological sciences are currently undergoing a revolution driven by the development of new DNA sequencing technologies. Huge amounts of genome information are now available. The challenge for scientists is to make sense of this data and understand how to exploit it to ensure practical benefits come from it.

### Getting to the Root of the Problem

Nematodes can be free living but many can be parasites of animals or plants. Plant parasitic nematodes exclusively depend on plant material for survival. The most damaging species have complex interactions with their hosts, setting up a long-lasting feeding site within the roots of the plant. The consequences for the plant are disastrous and may include yield losses or increased susceptibility to other pathogens. Since many plant nematodes have soil borne survival stages it is usually impossible to remove nematodes entirely simply by removing the crop.

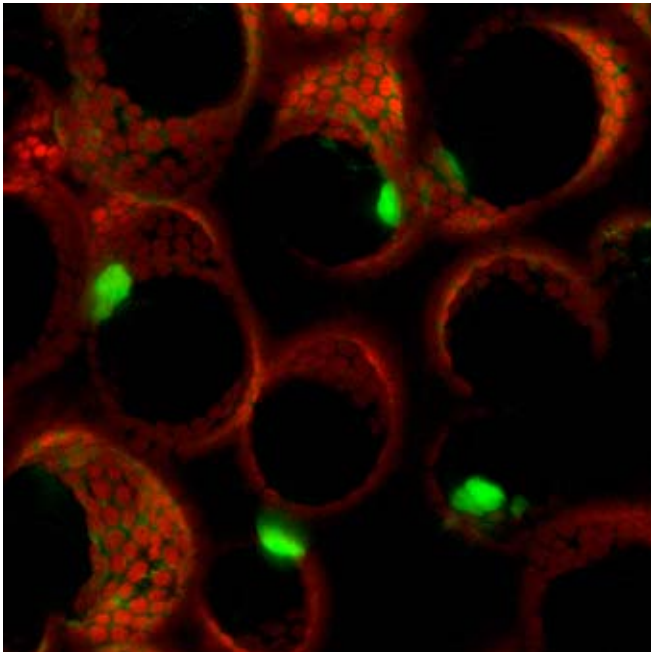
“Understanding how these nematodes operate, infect plants and how some plants resist nematode attack is essential to develop novel strategies to combat them and reduce damages to agriculture,” explains COST Action Chair Prof. John Jones.



COST researchers contributed significantly to the genome sequencing project for the root knot nematode or *Meloidogyne incognita*, one of the most damaging species. Managed by INRA, Génoscope, and the CNRS in France, the genome project was completed in 2008. The outcome was published in the July 2008 edition of *Nature Biotechnology*.

Making use of this data means researchers can identify new control targets including potential routes to new pesticides that specifically target plant parasites with minimal impact on other species. They can also understand the interactions between nematodes and their host crops in more detail which will help in breeding resistance to these parasites.

A workshop held in Antibes in November 2008 provided training in the software used to annotate the *Meloidogyne incognita* genome sequence, helping to make it widely available. It also ensured that researchers in many



different institutes now have access to and help improve the annotation of the *Meloidogyne incognita* genome sequence.

“We have not only contributed to the annotation project but have trained scientists on using the software used in this process, ensuring that the sequence continues to be improved for the benefit of the whole scientific community,” explains Prof. Jones.

### Collaboration Rhymes with Success

By connecting scientists from 17 European countries, Israel, Turkey, Ukraine and Australia, COST Action 872 has helped bring together a previously fragmented field of research and has created a new community of researchers. Working together and learning from each other has saved time, prevented unnecessary duplication of research efforts and helped research move forward faster. The Action has also helped bring scientific researchers and end users, such as plant protection experts and industry representatives, together.

“COST has allowed us to bring scientists together for large meetings and has also allowed us to organise small workshops on specific issues. Thanks to short-term scientific missions and a workshop on genome annotation, we have not only contributed to research but trained researchers and spread the expertise,” adds Prof. Jones.

In the future, this Action will make sure the wider scientific community stays aware of how to access the *Meloidogyne incognita* genome sequence. In addition, it can be used to consult the community on issues of wide importance such as the functional nomenclature of gene families.

## COST Action 872 Exploiting Genomics to Understand Plant–Nematode Interactions

Chair: Prof. John Jones

E-mail: [jjones@scri.ac.uk](mailto:jjones@scri.ac.uk)

COST Science Officer: Dr Albino Maggio

E-mail: [amaggio@cost.esf.org](mailto:amaggio@cost.esf.org)

Website: <http://cost872.scri.ac.uk>

Participating Countries:

Austria, Belgium, France, Germany, Greece, Ireland, Israel, Italy, Netherlands, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, Egypt, Australia, Ukraine

Status of the Action: running from 2006 to 2010

# COST sows the Seeds of Future Collaboration with South Africa

This summer saw COST sign a new reciprocal agreement with South Africa. With no time to waste, a COST delegation headed to the African continent in early September to officially launch its collaboration agreement and promote its activities to research and industry alike.

It was an action-packed week as COST was represented at three side events running in parallel to the second South Africa – European Union Summit on 11 September 2009. The visit started with the South Africa–COST Partnership launch conference held in Pretoria on 8 September 2009, followed by the conference on “Enhancing SME participation in South Africa – EU science and technology partnerships” on 9 September 2009 and the “European Union - South Africa Academic Summit” on 10 September 2009, both taking place in Cape Town.

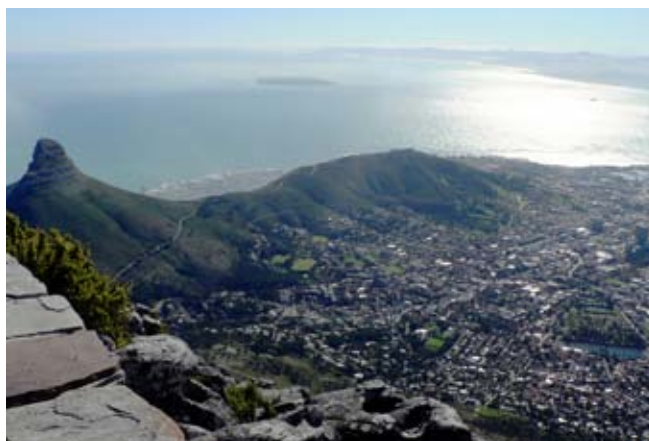
The entire programme was organised by Mr Mmboneni Muofhe, Chief Director of Strategic Partnerships, and his team from the South African Department of Science and Technology and by Daan du Toit, Minister Counsellor (Science and Technology) from the South African Mission to the European Union. He also arranged for COST Office representatives to meet with South African research institutions to share ideas for further collaboration in the future.

## Officially Launching the COST - South Africa Partnership

Pretoria was the location for the official launch of the partnership agreement. The event was hosted by the European South African Science and Technology Advancement Programme (ESASTAP), the organisation in charge of implementing the agreement.

The opening session demonstrated how South African researchers involved in COST Actions could benefit from the agreement and conduct Short-Term Scientific Missions to counterparts in COST countries. More practical information followed later in the day when Ms Thabisa Mbungwana, Director for Strategic Partnerships at the Department of Science and Technology introduced ESASTAP. She presented the application procedure and gave an overview of the advisory and support services available to prospective participants.

COST Office Director Dr Martin Grabert outlined the future role of COST in the context of the global opening of the ERA and explained how joining COST Actions contributes to building trustful networks - a prerequisite for joining the Framework Programme. COST Office Science Officers, Dr Julia Stamm, Melae Langbein and Dr Magdalena Radwanska then went on to describe the thematic overviews of selected Actions in the Science in Society, Life Sciences and Natural Sciences clusters respectively.



Strong enthusiasm for this initiative was expressed by the invited speakers. Prof. Thomas Auf der Heyde, Deputy Director-General for International Cooperation and Resources of the South African Department of Science and Technology, said to be “convinced that South Africa will benefit hugely from its involvement in COST and that, by tapping into this opportunity, South Africa will be able to address some of its specific challenges in the science and technology sector such as human capital development.”

Mr Gerasimos Apostolatos, Principal Scientific Officer, Directorate-General Research, European Commission, added that “human capital and institutions are key to evolving from a developing to a developed country” and that South Africa was not only a success story for the European Union but could also serve as a model for the entire continent.

From the COST CSO side, Mr Stefan Cairén, representing the COST CSO and the Swedish Ministry of Industry, Employment and Communication, stressed that COST could possibly serve as a model for science and

technology cooperation in the African region. He believes that “if South Africa were to drive this process, it would probably find many helping hands from Europe.”

However, it were the experiences described by Actions involving South African participants that testified the benefits of global cooperation. They also provided some useful insights into how COST could improve procedures in the future.

“Joining was easy!” said Prof Maureen Taylor from the University of Pretoria with a smile, “the mutual benefit was so clear that the Chair of COST Action 929 invited us immediately.”

This statement was fully endorsed by Prof. Erika de Wet who presented COST Action IS0602 which involves the University of Pretoria. She added that learning the COST terminology does take some getting used to. However, “once you learn to speak the COST language, procedures do run efficiently.”

Finally, Dr Judy Coates from Mintek and Dr Dean Brady from CSIR Biosciences shared how their applications to join an Action as a non-COST country had been processed very quickly. For Dr Brady, this was a pleasant surprise. His previous application to join a COST Action had taken much, much longer since it had been presented when the COST structure was in full transition from the European Commission services to the separate COST Office.

Dr Martin Grabert concluded a successful day of talks by comparing COST to the Seventh Framework Programme (FP7). He pointed out that three out of 42 European Technology Platforms (ETPs) under FP7 had actually directly resulted from COST Actions.

“Judging by the enthusiastic response received from the participants, the number of COST Actions with South African involvement is likely to increase over the next few months and I encourage researchers to contact ESASTAP and make use of the reciprocal agreement as much as possible,” he declared.

## Next Stop: Cape Town

The next day, COST turned to industry and joined a side event on enhancing SME participation in South Africa - EU science and technology partnerships. Hosted by the South African Department of Science and Technology and VINNOVA, the Swedish Governmental Agency for Innovation Systems, these talks set out to boost the role of SMEs in science and technology cooperation and, by extension, in COST Actions.

## ISCH and BMBS Create Synergies

### Human Sciences Research Council

Dr Julia Stamm, Science Officer for the ISCH Domain, met with the Human Sciences Research Council (HSRC).

Dr Stamm met with Ms Bridgette Prince and her team. Concrete plans for creating synergy and encouraging cooperation between South-African and European researchers involved in COST Actions were discussed. Among others, the fields of innovation and knowledge management, health, governance and climate change seem to be particularly promising for research cooperation.

HSRC conducts large-scale, policy-relevant, social-scientific projects for public sector users, non-governmental organisations and international development agencies. It serves as a knowledge hub to bridge the gap between research, policy and action; increasing the impact of research.

### South African Medical Research Council

Dr Magdalena Radwanska, Science Officer for Strategic Activities visited the South African Medical Research Council (MRC),

Dr Radwanska met MRC representatives, President Prof. Anthony MBewu, Vice-president Research, Dr Muhammad Ali Dhansay and Executive Manager Dr Niresh Bhagwandin to discuss and compare thematic portfolios and identify efficient pathways towards scientific collaboration and functional networks. The MRC was also very interested in the reciprocal agreement when it transpired that COST has a range of Actions in several domains with a direct link to the research conducted by the MRC.

COST scientists within the BMBS domain, for example, conduct research that deals with biology, pathogenesis, and diagnosis and drug development against different microbial pathogens. In order to centralise and facilitate joining the COST networks from the MRC side, Executive Manager Dr Niresh Bhagwandin was proposed to act as a coordinator having previous experience in coordinating strategic research initiatives such as FP7.

Mr Stefan Cairén, Dr Anne Lidgard and Christian Hansen presented Sweden's strategies for promoting SME involvement in research and innovation programmes with some concrete examples.

SME representatives were very keen to learn about the European policy context and the European instruments for cooperation. Contributions were made by distinguished speakers such as Gerasimos Apostolatos of DG Research; Dr Anil Sooklal, South Africa's Ambassador to the European Union; Mamohlosing Tlhagale, Deputy Director of the South African Department of Science and Technology and Derek Hanekom, South Africa's Deputy Minister of Science and Technology.

When introduced to COST, Mr Hanekom exclaimed: "Glancing through this pocket book [About COST 2009] just makes me wish there were more than 24 hours in a day, each of the projects is so interesting!"

### European Union - South Africa Academic Summit

Finally, on 10 September 2009, Dr Grabert, COST Office Director, presented COST at the "European Union - South Africa Academic Summit" which ESASTAP organised in cooperation with Higher Education South Africa (HESA). The South African research and academic community as well as politicians present such as Sue van der Merwe, Deputy Minister for International Relations and Cooperation, were not only interested in the opportunities offered by COST but also in its procedures and how they could be applied to South African institutions.

Especially COST's approach of encouraging interdisciplinary proposals (aka TDPs) through the Open Call procedure seems to be, as Professor Loyiso Nongxa put it: "the natural way for South Africa to bring research together."

### COST Actions Involving South Africa

- Prof Maureen Taylor represented **COST Action 929: A European Network for Environmental and Food Virology** which involves the Faculty of Health Sciences from the University of Pretoria.

[http://www.cost.esf.org/domains\\_actions/fa/](http://www.cost.esf.org/domains_actions/fa/) ➤  
[Actions/Network\\_for\\_Environmental\\_and\\_Food\\_Virology](http://www.cost.esf.org/domains_actions/fa/Actions/Network_for_Environmental_and_Food_Virology)

- Dr Dean Brady represented **COST Action CM0701 Cascade Chemoenzymatic Processes: New Synergy between Chemistry and Biochemistry** which involves the Council for Scientific and Industrial Research (CSIR) Biosciences in Modderfontein.

[http://www.cost.esf.org/domains\\_actions/cmst/](http://www.cost.esf.org/domains_actions/cmst/) ➤  
[Actions/Cascade\\_Chemoenzymatic\\_Processes](http://www.cost.esf.org/domains_actions/cmst/Actions/Cascade_Chemoenzymatic_Processes)

- Dr Judy Coates represented **COST Action D39 Metallo Drug-Design and Action** which involves Mintek.

[http://www.cost.esf.org/domains\\_actions/cmst/](http://www.cost.esf.org/domains_actions/cmst/) ➤  
[Actions/Metallo-Drug\\_Design\\_and\\_Action](http://www.cost.esf.org/domains_actions/cmst/Actions/Metallo-Drug_Design_and_Action)

- Prof. Erika de Wet represented **COST Action IS0602 International Law in Domestic Courts** which involves the Centre for Human Rights from the University of Pretoria.

[http://www.cost.esf.org/domains\\_actions/isch/](http://www.cost.esf.org/domains_actions/isch/) ➤  
[Actions/ILDC](http://www.cost.esf.org/domains_actions/isch/Actions/ILDC)

The conclusions of the **Second South Africa-European Union Summit** (13231/09 (Presse 266)), mentioning COST as an important tool to develop the cooperation between South Africa and the EU:

<http://www.cost.esf.org/module/download/6761>

**Programmes and presentations of the events are available on:** [http://www.esastap.org.za/esastap/events/events\\_past.php](http://www.esastap.org.za/esastap/events/events_past.php) ➤

**For more information on the COST reciprocal agreements:** [http://www.cost.esf.org/about\\_cost/reciprocal\\_agreements](http://www.cost.esf.org/about_cost/reciprocal_agreements) ➤

# Recent events and activities

## **COST Foresight 2030 - Workshop on Organisation of European Society**

7 to 9 October 2009, Bruges, Belgium

Based on the conclusions of the previous five workshops, 20 experts set out to envisage the society of 2030, especially focusing on future cities, health, education, business and impact on human behaviour.

Excited about the outcomes of these discussions, COST has defined how ICT will support scientific progress in the 21st century, boosting partnerships between industry leaders and academic excellence. Results are set to influence health, social and economic policies. A prediction report will be produced in early 2010.

More information:

[http://www.cost.esf.org/events/foresight\\_2030\\_society](http://www.cost.esf.org/events/foresight_2030_society)

## **Advanced Science Communications Training Course for COST Action Chairs**

5 and 6 October 2009, Technopolis, Mechelen, Belgium

For the first time, COST joined forces with Ecsite, the European Network of Science Centres and Museums, to organise a science communication training course for COST Action Chairs.

Thanks to this unique partnership, the course offered this group the best combination of competencies in scientific collaboration and communication. Participants picked up the latest tips to make their outreach strategy as effective as it can be and give their Actions and themselves the visibility they need within the science community and beyond.

Technopolis was chosen as a venue for hosting the event, meaning participants also got a hands-on experience from experts at the science centre.

More information:

[http://www.cost.esf.org/events/cost\\_and\\_ecsite\\_advanced\\_science\\_communication\\_training\\_course](http://www.cost.esf.org/events/cost_and_ecsite_advanced_science_communication_training_course)

## **COST Days in Morocco**

29 September to 2 October 2009, Casablanca, Rabat and Marrakech, Morocco

Following contacts between COST CSO President Prof. Francesco Fedi and the Ambassador of the Kingdom of Morocco in Italy, a series of COST Days were organised across the country by the Ministry of Education and Research of Morocco.

“These COST days are in line with the COST strategy towards Mediterranean North African countries to encourage participation in COST Actions by researchers from the near-neighbouring countries,” said Professor Fedi.

They also respond to the bilateral relations between EU and Morocco and the integration of the Moroccan research system into the European Research Area which was discussed at the ‘Groupe de travail ad-hoc UE-Marocco sur le renforcement des relations bilatérales’.

During the COST days Professor Fedi illustrated the ‘Past, Present and Future of COST’, Dr Thierry Goger and Ms Magali Poinot from the COST Office presented ‘Scientific trends in COST Actions’ and ‘How to participate in a COST Action’, respectively, and Dr Ahmed Rassili from the University of Liège and Chair of the COST Action 541 Thixosteel illustrated the benefits of COST in stimulating the research network. A questions and answers session with the representatives of the scientific community of Morocco followed.

In Casablanca, the COST Delegation was welcomed by Dr Mohammed Barkaoui, President of the University Hassan II, and by Professor Zayer El Majid, Director of the Technology in the Ministry of Education and Research. In Rabat the COST Delegation was welcomed by Professor Driss Aboutajdine, Vice-President of the University Mohamed V Souissi. In Marrakech, the welcome address was given by Professor Mohamed Marzak and by Professor Boumediene Tanouti, President and Vice-President of Cadi Ayyad University of Marrakech, respectively.

More information:

<http://www.cost.esf.org/events/moroccan-cost-day>

**Forward Look on Food  
Complex Systems and Changes.  
Darwin and Evolution: Nature-Culture Interfaces**

15 to 20 September 2009, Sant Feliu de Guixols, Spain

2009 marks the bicentennial of Charles Darwin's birth and 150 years since 'On the Origins of the Species' was first published. Inspired by these events, COST-ESF organised a multidisciplinary High-Level Conference. Different scientific domains, such as life sciences and medicine, humanities and social sciences, met around the guiding mechanisms of evolution and the legacy of Charles Darwin.

COST Domains BMBS and ISCH joined forces to bring together historians, molecular biologists, neuroscientists and philosophers to debate on topics such as evolution versus creationism.

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More information: <http://www.cost.esf.org/events/darwin>

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**9th European Meeting on Glial Cells**

8 to 12 September 2009, Paris, France

COST Actions BM0603 Neurinfnet and BM0604 Myelinet recently contributed to the European meeting on Glial Cells. Specifically, COST Action BM0604 sponsored a full-day lecture course on glial biology and diseases. A number of early stage researchers benefited from attending the poster sessions and plenary talks.

Glial cells are non-nerve cells with a vital role in the nervous system. They support nerve cells and provide them with nutrients, destroy pathogens and remove dead nerve cells. Every aspect of brain development and function revolves around the nerve cell and glial cell partnership. Understanding how they function is essential when answering questions on diseases such as multiple sclerosis, Alzheimer's and Parkinson's.

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More information: <http://www.glialcells2009paris.com>

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**Euromat 2009: European Congress and Exhibition  
on Advanced Materials and Processes**

7 to 10 September 2009, Glasgow, United Kingdom

Held every two years, Euromat meetings are sponsored by the Federation of European Materials Societies (FEMS). They have become prime venues in Europe for a major gathering of academics and industrialists with an interest in Materials Science and Technology.

COST joined the exhibition, showcasing its achievements in this area of research. The Euromat series is organised by the 28 FEMS member societies representing a showcase of the competence of the European materials community.

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More information: <http://www.euromat2009.fems.eu/>

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**NanoteC09 - Carbon Nanoscience and  
Nanotechnology**

26 to 29 August 2009, Brussels, Belgium

MPNS was present at this year's NanoteC conference. Representatives from the COST office joined a lively roundtable discussion on nanotechnology policy, contributing its research experience in this field.

One of the longest running series of international nanoscale carbon NanoteC conferences have been taking place in Europe since 1998. They bring together scientists working with nanoscale carbon materials: nanotubes, graphene, diamond- and fullerene-related nanostructures.

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More information: <http://www.hpc.susx.ac.uk/nanotec/>

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**Natural Products Chemistry, Biology and Medicine II**

29 August to 3 September 2009, Acquafredda di Maratea, Italy

Understanding how biological mechanisms work means that clinical drugs can be developed more rapidly and precisely. This symposium addressed all topics involved in this field of research and was an excellent forum for cross-disciplinary discussions, collaboration and provided training for young students.

COST-ESF High-Level Research Conferences provide the opportunity for scientists who are leaders in their fields and other participants, including young researchers, to meet informally for discussions at the highest level on the most recent developments in their field of research. They act as a catalyst for creating new synergistic contacts throughout Europe and the rest of the world.

The scheme favours the active involvement of young researchers (short talks, poster presentations) and strives to achieve gender balance.

More information: <http://www.cost.esf.org/events/naturalproducts2>

**EUREKA German Presidency Launch Event**

6 to 7 July 2009, Dresden, Germany

Professor Francesco Fedi, President of the COST Committee of Senior Officials (CSO), took part in the launch of the German EUREKA Presidency “World-Class Innovation through International Cooperation.”



Prof. Francesco Fedi and Dr Walter Monig

Participation in this event reveals how both COST and EUREKA are establishing synergies, especially during the preparation phase of new projects. “Whereas COST Actions are in general oriented towards more fundamental and societal research as well as research directed to areas of public interest, EUREKA projects focus rather on technological research closer to the market,” commented Professor Fedi.

The conference was opened by Professor Annette Shavan, Federal Minister of Education and Research and closed with a roundtable discussion which included, among others, Professor Frieder Meyer-Krahmer, State Secretary at the German Federal Ministry of Education and Research (BMMF). The event concluded with remarks from Dr Walter Monig, Chairman of the EUREKA High Level Group and Deputy Director General at the Federal Ministry of Education and Research.

More information: <http://www.eureka.be>

# Agenda

## **COST Strategic Workshop: Benefits of Research Infrastructures beyond Science**

19 June 2009, Brussels, Belgium

COST organised a workshop to present key data from the Square Kilometre Array (SKA) project as an example of an international research infrastructure project to a selected group of European and global business, government and stakeholder officials.

The goal of this strategic workshop was to improve the understanding of boundary conditions and exchanging best practice experiences that will positively influence SKA policy and assist in the development of business cases to industry and governments, around the SKA project.

SKA is a international project to create a radio telescope incorporating a receiving surface of a million square metres, fifty times larger than the biggest receiving surface now in existence. The SKA was conceived as a new international project to meet the future needs of radio astronomers. It will be used to address some of the more fundamental questions in contemporary physics and astronomy; including the nature of the first stars in the Universe, the cosmic history of the Universe, the nature of Dark Matter and Dark Energy, theories of gravity and black holes and the origin of cosmic magnetism.

Beyond the internationally agreed SKA key science projects, several benefits in terms of capacity and capability enhancement, as well as direct economic and indirect societal impacts are expected.

More information: <http://www.skatelescope.org/>

## **Information and Brokerage Day on Call FP7 - KBBE 2010**

### **International Cooperation in Food, Agriculture and Fisheries, and Biotechnology**

7 October 2009, Brussels, Belgium

In collaboration with the European Commission, the BIOCIRCLE project is organising an information day on the upcoming call for proposals under the 'Food, Agriculture and Fisheries and Biotechnology' theme of the Seventh Framework Programme (FP7).

The call for proposals was launched on 30 July 2009. COST will also participate in this event bringing together research stakeholders, from both the public and private sectors from the EU and Third countries. A COST representative from the FA Domain will provide ground for discussion and networking opportunities within Food, Agriculture and Fisheries, and Biotechnology.

The event will include a general introduction with presentations of the main features and areas addressed by the 2010 call. The event will also include a brokerage session, with flash presentations of proposal ideas and pre-arranged bilateral meetings to discuss potential partnerships in FP7 proposals. The event is expected to be attended by a large number of delegations from countries outside the European Union.

More information:

[ftp://ftp.cordis.europa.eu/pub/fp7/kbbe/docs/programme-draft-august17\\_en.pdf](ftp://ftp.cordis.europa.eu/pub/fp7/kbbe/docs/programme-draft-august17_en.pdf)

## **Systems Chemistry II: Evolution and Systems**

18 to 23 October 2009, Lake Balaton, Hungary

Systems chemistry deals with the analysis and synthesis of autocatalytic chemical systems. The roots of potential biological evolution also lie within this area of science.

Darwin's now celebrated theory of evolution by natural selection was universally accepted thanks to modern synthesis, which unites Darwinian reasoning with classical and population genetics. We are now experiencing a phase of extended evolutionary synthesis deepening and expanding the modern synthesis.

This conference will focus on the unifying organisational and dynamic principles that link systems chemistry with other fields of science. Presentations will go beyond chemistry, but will also allow participants to learn new ways of thinking about chemistry.

More information: [http://www.cost.esf.org/events/systems\\_chemistry](http://www.cost.esf.org/events/systems_chemistry)

### **Ecasia '09: 13th European Conference on Applications of Surface and Interface Analysis**

18 to 23 October 2009, Antalya, Turkey

ECASIA conferences have covered all relevant developments in the field of surface analysis in the past 25 years. This year, COST is taking part in the exhibition and promoting its activities within the MPNS Domain. The scientific programme includes presentations on state-of-the-art equipment for surface analysis as well as corresponding accessories.

Understanding the surface properties of materials at the molecular level requires sophisticated, expensive and large research equipment working in a very high vacuum environment and under large electrical and/or magnetic fields. The meeting expects to provide an excellent platform for an exchange between scientists from industry, academia, government and suppliers of equipment for surface analysis.

More information: <http://www.ecasia09.org/>

### **COST Day Switzerland**

21 October 2009, Fribourg, Switzerland

The Swiss State Secretariat for Education and Research SER invites to a Swiss COST Day 2009.

Four scientists from different COST Domains will give an insight into topics presently covered in their COST Actions and will describe their experiences with COST.

The presentations will be given in German, French and English. In addition, some technical and administrative COST information will be provided. Furthermore, sufficient time will be devoted to discussions and exchange of ideas.

More information: [http://www.cost.esf.org/events/swiss\\_cost\\_day](http://www.cost.esf.org/events/swiss_cost_day)

### **CABI Global Summit – Food Security in a Climate of Change**

19 to 21 October 2009, London, UK

See article on page 4.

### **From Information to Knowledge, from Knowledge to Wisdom: Challenges and Changes Facing Higher Education in the Digital Age**

5 to 7 November 2009, Stockholm, Sweden

The traditional model of higher education is inappropriate for the new context and challenges of the 21st century. European universities are rapidly becoming “mass” and “multi-purpose” institutions. This trend is paralleled by globalisation and the exponential increase of information, the flow, diffusion, and use of which is hard to monitor and control.

COST representatives from the ISCH Domain will be contributing their experience and promoting achievements in this field during this two-day event. The meeting will look at the consequences of these ongoing developments on the role of tomorrow’s science in the knowledge and learning society.

A major responsibility of higher education institutions is to guide students in such a way that they are able to selectively process and transform information into deep conceptual knowledge networks. They must also learn how to deal with the impact of this massive increase of retrievable information and the explosive development of its digital archiving and access.

More information: <http://www.acadeuro.org/index.php?id=wennergren2009>

**COST Exploratory Workshop: What can COST do to respond to the Future Needs of the Paper Industry?**

17 to 19 November, Brussels, Belgium

See article on page 5.

**Law and Neuroscience: Our Growing Understanding of the Human Brain and its Impact on our Legal System**

26 to 31 October 2009, Acquafredda di Maratea, Italy

In the past two decades, the field of Cognitive Science has made significant progress in understanding the human brain. Many expect that this research will make further strides over the next decade. There is suggestion that this knowledge could have a profound impact on the future of our legal system and legal practice.

There has been much speculation over whether developments in neuroscience will overturn legal paradigms. This conference will sidestep such speculations to address empirical evidence and current research on the likely impacts of neuroscience on legal practice, with a specific focus on European legal systems.

The aim is to establish a dialogue between neuroscientists, legal practitioners, researchers in socio-legal studies and social scientists, to further mutual understanding and make some realistic evaluations of the potential developments at the intersection of neuroscience and law.

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More information: [http://www.cost.esf.org/events/law\\_and\\_neuroscience](http://www.cost.esf.org/events/law_and_neuroscience) ➔

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**COST Exploratory Workshop: Low input - Organic Agriculture**

30 November 2009, Brussels, Belgium

Agricultural systems still need to produce and be profitable for farmers, but they have to conform to increasing environmental constraints, to concerns about the safety of their products for human health and to demands for better quality and environmental safety.

The first ever meeting between agriculture ministers from the world's eight most industrialised nations (G8) held from 18 to 20 April 2009 called for more public and private investment in sustainable farming to boost food supplies and ensure global food security.

To illustrate the new vitality in this sector and to attempt to provide answers for such questions, COST will set out to identify the needs and potentials for a structured COST Action. The output of this exploratory workshop will also provide a valuable series of indicators that stakeholders and policymakers can use in planning for the post FP7 era.

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More information will be available on the COST website soon.

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**COP15**

7 to 18 December 2009, Copenhagen, Denmark

The impending effects of climate change are now exceeding our worst fears, the world is now facing a giant challenge. COST will be represented at COP15 to contribute to the debate on future responses to climate change. It will join government officials, politicians, NGOs in suggesting scientific options to address various aspects of this global crisis.

The Conference of the Parties (COP) hopes to do so by following up on the Kyoto agreement with another ambitious strategy for a concerted, international response to Climate Change beyond 2012.

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More information: <http://en.cop15.dk/frontpage>

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## Partner Events

### International Symposium UICS'2009 – Understanding Intelligent and Complex Systems

22 to 23 October 2009, Târgu-Mures, Romania

The purpose of the symposium is to bring together researchers working in the main areas of Complex Systems, Artificial Intelligence, Intelligent Systems and Natural Computing for presenting their recent results, exchanging ideas and cooperating in a friendly framework.

Organised by the Petru Major University of Târgu-Mures, the event will feature speakers from across Romania. Invited speakers currently include: Professor Dr Ioan Dzitac, "Aurel Vlaicu" University, Arad, Romania; Professor Dr Cyrille Bertelle, Le Havre University, France; Academician Dr Florin Gheorghe Filip, Romanian Academy, Bucharest; Professor Dr Calin Enachescu, Petru Major University, Târgu-Mures, Romania; Professor Dr Mihai Talmaciu, University of Bacau, Romania.

More information: <http://uics.upm.ro/>

## Call for Posters

### COST Strategic Workshop on Principles and Development of Bio-Inspired Materials

13 to 15 April 2010, Vienna, Austria

Bio-inspired materials are becoming increasingly relevant to many fields of applications. The aim of the COST Strategic Workshop is to provide a forum to stimulate interactions between relevant disciplines including biology, materials science, biomimetics, engineering and physics.

If you wish to present a poster, you must complete the application form available at [www.map.boku.ac.at/workshopBIOMAT.html](http://www.map.boku.ac.at/workshopBIOMAT.html) no later than **14 October 2009**. Poster contributions will be selected by the Steering Committee.

**Three prizes for the best posters** will be awarded by the Steering Committee to Early Stage Researchers\* who present at the workshop. The following criteria are used to evaluate the posters and choose the winners: structure, coherence of the message, theoretical framework, use of relevant resources and strength of the relationship to the workshop theme.

### Financial Support

**30 grants** are available for Early Stage Researchers\* to cover the conference fee and possibly part of the travel costs. Grant requests should be indicated in the "Grant application" section of the application form.

\*Early Stage Researcher = any researcher within the first 10 years work experience since their last qualification (BSc, MSc, PhD) not including career absence.

Find more Information at:  
[www.cost.esf.org/events/biomat](http://www.cost.esf.org/events/biomat)  
[www.map.boku.ac.at/workshopBIOMAT.html](http://www.map.boku.ac.at/workshopBIOMAT.html)



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## Links

Website links were correct at time of publication, but may since have changed.

## Agenda information

To the best of our knowledge, agenda information was correct at the time of writing although changes may occur.

For up-to-date information on COST Events please also visit:

<http://www.cost.esf.org/events>

## About COST

COST is an intergovernmental European framework for international co-operation between nationally funded research activities.

COST creates scientific networks and enables scientists to collaborate in a wide spectrum of activities in research and technology.

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**For further information please visit**

<http://www.cost.esf.org>

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