# Agriculture Food Agropolis Biodiversity Environment International Newsletter

Newsletter of **World centre for agricultural, food and environmental sciences** - France ■ Issue 3 - March 2009

>WHAT'S ON IN MONTPELLIER?

# **Agropolis Fondation:**

# In just 2 years the new Foundation invested ca. 10 million euros on 48 selected proposals

Agropolis Fondation is a French scientific foundation established in 2007. It aims at promoting and supporting high-level research in the fields of agricultural sciences and sustainable development by dealing with issues interesting both Northern and Southern countries.



**■** The Foundation encourages the development of multidisciplinary and cross programmes associating agriculture and other major research issues (agriculture and mathematics, agriculture and chemistry, etc.).

#### A broad range of skills on plant research

created to support the thematic

(RTRA) 'Montpellier agriculture and sustainable development' that includes about 30 research units located mainly in Montpellier and Avignon and concentrates a broad range of skills on plant research from gene to environment and then to plant processing and final use. The network involves over 800 scientists and lecturers and about 400 PhD

and funded 48 projects (10 million euros). These projects provide support for hosting about 50 international scientists (senior, junior, PhD and postdoctoral students) and another 50 scientists who take part in the international thematic school funded by the Foundation.

#### **Pl@ntNet & ARCAD**

The first flagship programme called Pl@ntNet has been selected in 2008; its main objective is to set up a software platform allowing the acquisition, management and access to data on plants for three types of users: scientists, managers and citizens.

The second programme called ARCAD (Agropolis Resource Center for Crop Conservation, Adaptation and Diversity) has just been selected; it is altogether a collaborative scientific programme in the field of plant genetic resources, a technological platform and a set of activities for training and capacity building. The Languedoc-Roussillon regional authorities will support the programme, with a 5-million grant added to the 3 now given by the Foundation.

For more information www.agropolis-fondation.fr

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# Agropolis Fondation was Agropolis Fondation is just two network for advanced research years old and has already selected

# Competitiveness cluster Q@LI-MEDiterranée: a connection between research and industry to be mobilised at international level

■ The new strategy of Q@LI-MEDiterranée has been refocused upstream and expressed through the slogan: 'let us invent the Mediterranean food for tomorrow'; for this purpose a new working group has been created to deal with international activities, it is jointly led by Georges Jordan (MIP) representing the firms and Éric Fargeas (Agropolis International-Acta) representing research.

This group aims at encouraging the participation of the competitiveness cluster and its members in international programmes related to technology transfer and innovation projects.

In this framework, Q@LI-MEDiterranée pays great attention to the initiative taken by the French State, at the beginning of 2009, to reinforce cooperation between the competitiveness clusters in the Mediterranean area.

To take into account the new directions of the cluster, the board of directors has elected new members and has given more importance to the firms group. Agropolis International is a member in the 'research' group.

For more information www.qalimediterranee.fr Contacts: info@qalimediterranee.fr fargeas@agropolis.fr

let **us** invent the Mediterranean food for tomorrow



#### >EDITO

It has been a great privilege for me to be the President of Agropolis International for the past 3 years. During my office, I have intended, like my predecessors and to remain faithful to Louis Malasssis' work, to reinforce the national and international scope of all the research and higher education establishments in agriculture located in the Languedoc-Roussillon region. It is time for me to retire and I give way to my successor, Bernard Hubert, who will be the 6<sup>th</sup> president of our association. He was elected unanimously on February 18<sup>th</sup> and will take his office on April 2<sup>nd</sup>, 2009.

Before leaving, I would like to share two thoughts:

- Firstly, I think that the mission of Agropolis International remains as important today as it was at the beginning, when the context of our action has undergone drastic changes. Today our institution is in charge of promoting the new agro-environmental cluster of Montpellier which shows the competencies of the major French institutes for agricultural research and of the future single university 'Montpellier Sud de France';
- Secondly, that the unequalled fame achieved by Agropolis International at international level must take new forms to get stronger and show its skills.

Our ambition must be to become the main agricultural research centre for development in the world, by increasing the number of partnerships and forming alliances with international research centres. To reach this goal will require both solidarity and unfailing commitment from all the members of Agropolis International, as well as the support of Agropolis Fondation (of which I remain the president) and the renewed help of the State and local authorities.

Good luck for this tremendous challenge!

Henri Carsalade

#### **Bernard Hubert is the new** president of Agropolis International

Bernard Hubert, aged 61, is a senior scientist at the National Institute for Agricultural Research (INRA) and Professor at the Advanced School for Social Sciences (EHESS) he is a veterinarian and Doctor in Ecology.



- 1970-1981: researcher at ORSTOM (now IRD), posted in Dakar (Senegal)
- As from 1981, researcher at INRA, Director of Ecological Development Unit at
- 1994-2002 : Director of the Agrarian Systems and Development Department
- 2003-2004: Deputy Scientific Director, in charge of Sustainable Development ■ 2004-2007: Scientific Director for 'Society, Economy, Decision-making' department
- As from June 2007: Director of joint venture 'The French initiative for International Agricultural Research'
- February 18<sup>th</sup>, 2009: Elected President of Agropolis International

Bernard Hubert is also a chief-editor of the journal 'Natures Sciences Sociétés' Together with his activities as a scientist and expert, Bernard Hubert participates in numerous bodies and initiatives at international level.



Montpellier Languedoc-Roussillon World centre for agricultural, food and environmental sciences

#### >COOPERATION

#### **ECHEL-Eau project**

Toward an integrated water resources management

■ The project 'Tools for integrated water resources management: implementation in Limpopo, Mekong and Niger basins', in short called ECHEL-Eau, is funded by the FSP (Fonds de Solidarité Prioritaire) of the French Foreign and European Affairs Ministry. It represents a total amount of 4 million euros for 4 years. Agropolis International is the executive project manager for two out of the three mentioned components.

The objective of the project is to encourage collaborations between French research institutes and Southern partners in order to contribute to a better water management —in particular agricultural water use— by integrating the effects of climatic changes. For this purpose, the project combines research, training and dissemination.

The ECHEL-Eau project is embedded in the Challenge Programme 'Water & Food' (CPWF) of the Consultative Group for International Agricultural Research (CGIAR) that is coordinated by the International Water Management Institute (IWMI) and conducted by a consortium of 18 members, including IRD. Three trans-border basins were chosen as study sites: those from Limpopo and Mekong, which are two CPWF benchmark basins, and the Niger basin



which is subjected to a strong commitment from France. Interactions between the basins and the possible transfer of the tools from one basin to another are the main requirements of the project.

The ECHEL-Eau project is based on three funding components. One component, managed by IWMI, supports research activities through a targeted contribution to the CPWF competitive funds. Seven research projects on three basins have been accepted by the CPWF and are underway or will soon be completed.

Two other components implemented by Agropolis International aim at supporting:

■ On the one hand, the preparation of projects on the Niger basin followed by the promotion of the results of the research projects conducted on the three basins: an atlas (or set of thematic maps) of the Niger basin will be published and a conference will be organised at the end of the project. The results will also be available on a website.

■ On the other hand, the development of capacity building for the Southern partners: 10 PhD students and 13 master students are currently receiving grants; finally, training products based on the results of the research projects are being devel-

ECHEL-EAU project finishes by the end of 2009.

For more information

http://www.agropolis.org/international/

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#### >SERVICES

### A new residence for students, trainees, visiting professors and researchers

On 23th January 2009, the MAI of Montpellier (IAM.M\*) —a member of Agropolis International has inaugurated its new mediterranean campus\*\*.

This campus is totally accessible to persons with restricted mobility; it offers 100 studio flats fully equipped, the villa Mediterranea dedicated to visiting professors and researchers



and a cafeteria with a capacity of 150. The facilities meet the standards set up for High Environmental Quality (HEQ) buildings and take into account sustainability while combining products from Northern and Southern areas of the Mediterranean. Renewable energy is widely used: natural ventilation instead of air conditioning, solar energy for hot water supply.

This real estate operation includes the implementation of standards for restricted mobility all over the campus (8,6 million euros); it has received financial support from the Languedoc-Roussillon region (3,8 million euros). The French Foreign and European Affairs Ministry, the CIHEAM and MAI -the executive project manager- provided 4,8 million euros. The facilities have increased the welcoming area by 4 000 square meters thus allowing the campus to play fully its part as a scientific Mediterranean platform for development.

\* MAI participates in the euro-mediterranean building up, it represents a Mediterranean bridge within the framework of Agropolis International and plays its threefold part including training, research and cooperation. Specialising in social and economic sciences, the Montpellier institute's first mission is to provide training to executive staff working for the agricultural and rural development in the Mediterranean area. Each year it hosts 400 students and executive staff in several fields: rural societies, agricultural economics and management of natural resources; sustainable development in rural areas; public policies and choices in agriculture and food: agrofood chains and stakeholders strategies

Together with the institutes located in Zaragoza (Spain), in Bari (Italy) and Chania (Greece), the Montpellier institute is a founding member of the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM), an international organisation created by an intergovernmental agreement including 13 Southern, Northern and Eastern Mediterranean countries; its General Secretariat is located in Paris

\*\* Inauguration under the patronage of :Mr Michel Barnier, French Minister of Agriculture and Fisheries, Mr Amin Abaza, Egyptian Minister of Agriculture, Mr Georges Frêche, President of the Languedoc-Roussillon Region, Mrs Hélène Mandroux, Mayor of Montpellier; in the presence of Mr Abdelaziz Mougou, President of CIHEAM, Mr Bertrand Hervieu, General Secretary of CIHEAM, Mr Vincent Dollé, Director of MAI, and numerous representatives of the local institutions and scientific community.

For more information: www.iamm.fr/actu/agenda/inauguration.html

#### >**ZOOM**

# Plant development and improvement

A topic supported by the campus dynamics

■ The Joint Research Unit DAP (Plant development and Genetic improvement -including Montpellier SupAgro, UM2, INRA and CIRAD), focuses on the analysis of Mediterranean and tropical plants biodiversity and the study of development mechanisms and response to environmental constraints.

Its work is particularly relevant in the current context of biodiversity erosion, global climatic change and emergence of new diseases. The research work aims at allowing the selection of new varieties ensuring high quality crops while using less inputs and adapting to constraints such as water or salt stress. Researchers rely on the latest technologies and knowhow to better identify the main genes and their func-

DAP unit is strongly involved at the international level, for example in the

#### www.agropolis.org

Agropolis International website in English has a new address: www.agropolis.org

'Generation Challenge Programme' and through partnerships with Brazil that led to the creation of a consortium between Embrapa and Agropolis International. The unit is also a partner in the collaborative local programme called ARCAD (Agropolis Resource Center for Crop Conservation, Adaptation and Diversity) which has just been selected by Agropolis Fondation as a flagship programme and will receive an important support from the Conseil Régional Languedoc-Roussillon.

To reinforce the location and development of DAP unit on CIRAD campus, a new building has been inaugurated by the end of 2008. This new facility (funded by the Government and the Regional authorities) favoured concentration of interinstitutional teams working on this topic. It represents 705 square meters including 250 square meters for laboratories, 375 square meters for offices and 80 square meters for meeting and conference rooms, it hosts 70 staff from the research unit member institutes. It provides modern facilities for genotyping and

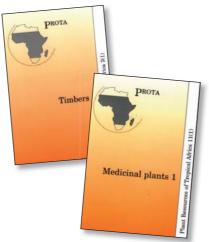
functional genomics platforms open

to the local community; it allows the hosting of foreign PhD students, post-docs, researchers and students in excellent conditions.

For more information http://umr-dap.cirad.fr

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#### >JUST PUBLISHED

# PROTA\* Encyclopedia (Plant resources of Tropical Africa) publishes 2 new books

#### **Medicinal plants**

Medicinal plants are so numerous that 4 books deal with this topic. The first book covers 26 botanical families and 406 species. The families with the biggest number of medicinal plant species are Apocynaceae, Asphodelaceae, Caesalpiniaceae, Euphorbiaceae, Loganiaceae, Menispermaceae and Solanaceae. PROTA also includes in this group the species used for animal medicine, as pesticides, arrow or fish poisons, or narcotic products. Most species have several secondary uses (timber, fruit, etc.) which are detailed.

#### **Timbers**

The presentation of this important group requires two books. The first one covers 25 botanical families and 280 species. The families with the biggest number of species are Lauraceae, Meliaceae, Mimosaceae, Myrtaceae, Papilionaceae, Sapotaceae, Sterculiaceae and Rutaceae. Most species have several secondary uses (tannins, fibres, fruit, etc.) which are detailed. Special attention has been paid to the description of the wood anatomy for the main species. It allows the identification of the species available for international trade, in the form of logs, planks or processed products. All the articles are published in French and in English, through books, CD-Roms and free Internet databases. Numerous colour photos are included on the CD-Roms and Internet.

\* PROTA programme associates 11 partners located in Africa and Europe. Its purpose is to synthesize information on useful plants of Tropical Africa taking into account every aspect of the plants (uses, properties, botany, agriculture, processing, etc.) and to promote their use for poverty alleviation in a perspective of sustainable development.

Six books have been published since its creation in 2004: vegetables, dyes and tannins, cereals and pulses, vegetable oils, medicinal plants 1, timbers 1. Three new books are underway: medicinal plants 2, timbers 2 and fibre plants. PROTA database describes 1169 species.

For more information www.prota.org

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