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Scientific cooperation between ASEAN and the European Union

Today leaders recognise the critical role of knowledge in marshalling solutions to increasingly complex challenges to our societies. Entire economies are judged by the investment they make into education, science, technology and innovation. Knowledge is indeed critical for turning these challenges into opportunities for more sustainable development.

The Association of Southeast Asian Nations (ASEAN) encompasses 10 countries holding a key position in the Asia-Pacific region. ASEAN was established on August 8, 1967 in Bangkok, Thailand, with five original member nations, Indonesia, Malaysia, Philippines, Singapore and Thailand. Brunei Darussalam joined in 1984. Vietnam, Lao, Myanmar and Cambodia joined between 1995 and 1999. With some 575 million people, the ASEAN Members have a population similar in size to Europe and a combined GDP of €900 billion (2007). Knowledge-driven sustainable socio-economic development, which also builds on the rich mosaic of cultures, may be one of the most promising ways to address the still large economic disparities between and within the ASEAN members, despite substantial economic growth, and to give citizens more choices for shaping their future.

European and ASEAN sensitivities towards environment and other challenges can be different because of diverse circumstances and historical trajectories. However, there is much agreement and convergence, not only in the arena of economic development, but also in the identification of a wide range of issues of common interest. All countries in both regions have ratified the Convention on Biological Diversity, endorsed the Johannesburg Plan of Implementation adopted at the World Summit on Sustainable Development and the Millennium Development Goals.

EU-ASEAN relations date back more than three decades. In November 2007 in Singapore, at the commemorative summit, leaders have solemnly agreed to implement an EU-ASEAN Enhanced Partnership, continue dialogue and close coordination to contribute to the maintenance of peace, security and prosperity. They agreed to cooperate on today's major challenges, such as climate change mitigation and adaptation, sustainable management and use of biodiversity, including forests, coastal and marine ecosystems and energy security. Other major areas for cooperation are sustainable consumption and production, health and disaster management, preparedness and prevention. Most, if not all, of these areas identified for priority cooperation can benefit from heavy inputs of science and technology to develop robust solutions. They also agreed to develop a bi-regional trade agreement and develop further socio-cultural cooperation.

In the 6th Research Framework Programme (FP6: 2002-2006) alone, some 89 collaborative scientific projects mobilised 121 participations from ASEAN members and 521 European (and other non-ASEAN) teams with a total value of more than €388 million. The sample of concrete collaborations is mostly made up of FP6 projects, which illustrate how societal challenges are being addressed through scientific and technological (S&T) cooperation.

Under the 7th Research Framework Programme (FP7: 2007-2013), the international dimension is intended to be more substantial, better coordinated and integrated into all its components. A high percentage of research opportunities are directly relevant for improved transitions towards sustainable development and a better grasp of the socio-economic conditions for change. FP7 also creates an enabling framework for such cooperation through measures on scientific and technological policy dialogue, promotion and activities to improve coordination of international S&T cooperation of EU Member States.

The specific programmes on agro-food, environment (including climate change), energy, transport, information society technologies, nanoscience and nanotechnologies and much more offer considerable opportunities to develop mutually beneficial cooperation. The specific programme on socio-economic sciences and humanities and Science in Society also favour such cooperation on economic strategies, sustainable development, political and social issues that are of relevance to both regions. Eighty two ASEAN member teams have successfully participated in FP7 proposals (figures available for evaluations held from 2007 up to May 2008). ASEAN members with prior FP6 experience have scored with an upward tendency and have also started diversifying cooperation into such areas as energy and international research infrastructures. Clearly, a number of technology research and industrial collaborations are already in place at bilateral and bi-regional levels serving as a valuable springboard. We are thus looking ahead towards further developing the S&T cooperation between the two regions as well as strengthening intra-regional cooperation in the process.

These science and innovation-oriented activities are largely complementary to and intended to be mutually reinforcing with bi-regional and bilateral technical and financial cooperation through external relations policies. These operate through - geographically focused - National and Regional Indicative Programmes as well as through support from thematic budget lines, such as on Environment and sustainable management of natural resources including energy, investing in people and others. The Regional Indicative Programme for the period 2007-2013 dedicates a specific chapter to cooperation in higher education and research in recognition of the central role of people and knowledge in building sustainable futures.



SEA-EU-NET - Facilitating the Bi-Regional EU-ASEAN Science and Technology Dialogue

The starting point of this INCO-Net is the substantial potential for the expansion of mutually beneficial S&T cooperation beyond well-established project-based research cooperation. The main objectives are:

Networking: To facilitate a bi-regional dialogue involving stakeholders from policy making, science community and industries. The dialogue will address the respective S&T potentials, policy goals and demands in order to define common priorities and to develop joint scenarios and implementation strategies for strengthening the S&T cooperation.

Analysis: To identify key-players and institutions in national research systems and to analyse the current S&T cooperation between EU and ASEAN member states by conducting a strategic mapping exercise and analysing bi-lateral EU-ASEAN relations. The strategic mapping exercise will facilitate information exchange and highlight opportunities for future cooperation.

Advising: To support the coordination of S&T cooperation activities with other EU policies and thus to promote a coherent approach towards the ASEAN region.

FP7- Participation: To strengthen the participation of EU-SEA-collaboration projects in the 7th EU Framework Programme with emphasis on the "Cooperation" and "Peoples" part of the programmes by establishing a network of National Information Points for EU-FP7 in SEA.

Topic Identification: To assist in joint identification of topics for collaboration under FP7 thematic programmes.

Scenario Development: To develop joint scenarios and setting up S&T related implementation activities addressed to deal with global challenges (in particular Millennium Development Goals).

Foresight: To provide EU and ASEAN S&T policy-makers with relevant policy recommendations on future research cooperation between these two regions.

Sustainability: All activities will be underpinned by a focus on sustainability and partnership, and designed to deliver impact beyond the lifespan of the four-year funding stream.

The formal project consortium consists of 16 organisations from 7 EU Member States, one Associate State and three ASEAN Member States. All are involved in ongoing bi-lateral research programmes and /or working as strategy and foresight organisations in the cooperation and bi-lateral dialogue between EU and ASEAN. They focus on various scientific areas, reaching from human and social sciences to technology. Partners represent national ministries (or their office of international relations), research councils, foundations, science academies, or research organisations. The intention is to mobilise many other stakeholders from the two regions during implementation, including multi-lateral organisations.



The INCO-Net runs from 01/01/2008 to 31/12/2011 and is coordinated by Dr. Gerold Heinrichs of International Bureau of the Federal Ministry of Education and Research, c/o German Aerospace Center (DLR), Germany. The consortium is composed of teams from Austria, France, Germany, Hungary, Indonesia, Malaysia, Netherlands, Poland, Thailand, Turkey, UK and Vietnam.

www.sea-eu.net

SEACOOP - Further developing strategic R&D cooperation with Southeast Asia on ICT

The SEACOOP project addresses the development of S&T cooperation on Information and Communication Technologies (ICT) with Southeast Asia. Its two main objectives are to identify, promote and support strategic cooperation opportunities, and to support bilateral and multilateral dialogues. The project also aims at developing awareness on S&T cooperation opportunities on ICT under the 7th Research Framework Programme (FP7) in Southeast Asia, and at widely disseminating project results in the European and Southeast Asian ICT communities.

The SEACOOP activities build upon the achievements reached by previous support activities and will develop synergies with other programmes and initiatives similarly addressing EU-Southeast Asia cooperation on ICT. Project outputs will include:

- The identification of, and support to, 10 to 15 key opportunities of strategic cooperation, expected to be transformed, before the end of the project (18 months), into major cooperation initiatives between the two regions, thanks also to the engagement, on the European side, of leading organisations, including European Technology Platforms,
- The organisation of a cooperation event in Europe, 6-7 October 2008, and of awareness workshops in Southeast Asian countries, expected to have large resonance because of strong participation of ASEAN partners: national agencies managing ICT research in Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand and Vietnam (the involvement of agencies from Brunei and Myanmar is considered too),
- The development of a web-based portal devoted to EU-Southeast Asia cooperation on ICT, part of an extensive set of promotion and dissemination activities.

The project is supported under the ICT Theme in FP7 managed by the European Commission (DG Information Society and Media).



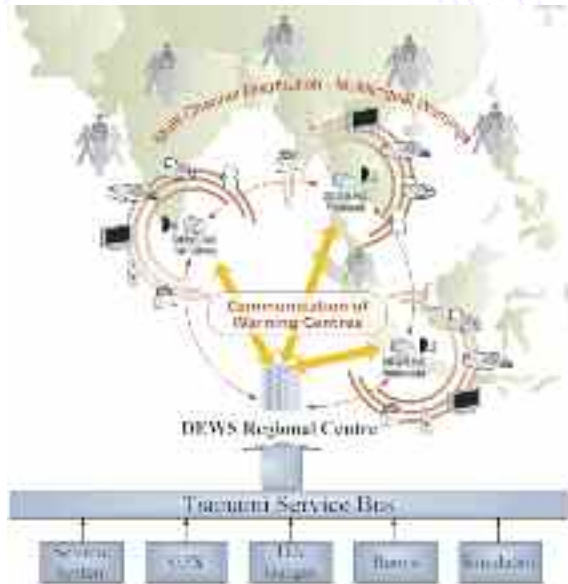
The SEACOOP project runs from 01/10/2007 to 31/03/2009 and is coordinated by Roger Torrenti of Sigma Orionis, France. The partnership includes strong teams from the following countries: Cambodia, France, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam.
www.eurosoutheastasia-ict.org

DEWS – Distant Early Warning System

The DEWS project addresses the present major shortcomings and important societal problems related to early warning systems for tsunamis and other coastal hazards. The project develops an innovative architecture, platform and services for the disaster management cycle between the German Indonesian Tsunami Early Warning System (GITEWS) hazard detection (providing upstream flow of information from sensor networks) and the decision support activities and warning/alarm capacities that constitute the downstream flow of information. It is intended to consist of several components acquiring, processing and distributing processed results of the analyses to support disaster assessment and management. The software under development includes models for tsunami wave spreading, assessment of vulnerabilities/consequences of natural disasters and systems for monitoring and crisis management, including information and decision support.

An early-warning distribution architecture is being developed, based of the Reference Model – ORCHESTRA Architecture (<http://www.eu-orchestra.org/>). It includes systems for prompt local warning of citizens, authorities and managing efficiently tsunami hazards and natural disasters in general. The project will provide an important innovative research contribution and improve EU competitiveness in the crisis management area. The collaborative research builds on existing capacities, cooperates with other EU research and develops a platform and services, allowing for flexible practical implementation to meet different requirements in the countries concerned. DEWS results will be interoperable with other systems based on standards, and be aligned with international cooperation mechanisms, including UNESCO-IOC, to ensure relevance and transferability of results to other tsunami-prone areas, such as the Mediterranean.

The research collaboration is developing integrators for sensors and sensor networks, information logistics and dissemination modules, an early warning and warning distribution system, integrators for systems for local warning of the public, information and decision support products and a service bus. Testing will facilitate future implementation and exploitation in different parts of the Indian Ocean Region. End-users will be involved in the development and testing to ensure the practical usefulness of the results. Exploitation and dissemination of results will be an important task for the project.



The project runs from 01/02/2007 to 31/05/2010 and is coordinated by Dr. José Fernando Esteban Lauzan of Atos Origin S.A. in Madrid, Spain. The consortium consists of partners combining qualified technological competence and application experience from the following countries: Finland, Germany, Indonesia, Italy, Japan, the Netherlands, New Zealand, Spain, Sri Lanka, Sweden and Thailand. <http://www.dews-online.org/>

ASEM Aquaculture Platform

The ASEM Aquaculture Platform is an open and permanent dialogue space for ASEM (Asia-Europe Meeting) members that are involved or interested in sustainable aquaculture. ASEAN members are a large part of this configuration. The initial development of the Platform was supported through project funding from an FP6 project and four years of funding by the Flemish Administration for Economy, Research and Innovation.

The Platform worked out an action-oriented agenda for co-operation and to develop a multi-stakeholder platform for dialogue, networking and continued coordination concerning sustainable aquaculture between EU and Asia. Through its different stakeholders the platform aimed to reconcile ecological and socio-economic demands and introduce or consolidate concepts of sustainability into aquaculture development in both regions. It worked towards a forum for experts and policy-makers, and disseminated knowledge towards policy levels as well as towards farmers, companies and students.

Throughout the various activities attention was paid to technical and societal concerns. This translated into a series of activities, including six multi-stakeholder workshops addressing

1. Trade, food safety, nutritional security and quality standards

- Trade opportunities, constraints and risks (inputs, outputs and services)
- Maintenance/establishment of markets, market stability
- Consumer nutrition, consumer perception of industry
- Traceability, certification, labelling

2. Environmental sustainability

- Biological and technical issues (husbandry, grow-out systems, animal health, feeds and feeding technology)
- Identification and calibration of sustainability indicators
- Integrated assessment of production systems (monoculture, polyculture, various combinations of aquaculture with agriculture and forestry, coastal zone management, etc.)
- Genetics, breeding, genomics and stock improvement

3. Social equitability

- Support to social cohesion with particular emphasis on smallholder and barriers to entry
- Recognition of gender issues in sustainable aquaculture
- Explore and use consultative and participatory approaches to education, research and management.

Off-shoots of work on the Aquaculture Platform are, among others, connecting international aquaculture research cooperation with some of the ASEAN members with industrial investment, student exchange and improved collaboration within and between countries in Southeast Asia. The mobilisation effects went very largely beyond the formal contractual responsibility for the initial Platform development.

The FP6 project lasted from 15/05/2004 to 14/05/2006 and was coordinated by Prof. Patrick Sorgeloos of the University of Ghent, Belgium. The management committee involved very active partners from Belgium, Greece, Japan and Thailand. The steering committee comprised representatives mostly from regional public and private sector bodies and associations from both Asia and Europe.
www.asemaquaculture.org



INCOFISH – Reconciling multiple demands on coastal zones with emphasis on aquatic ecosystems and fisheries

INCOFISH conducts specifically targeted strategic research towards reconciling multiple demands on coastal zones. It has evaluated and integrated data, tools and concepts suitable to contribute to the goals set by the World Summit for Sustainable Development in Johannesburg, such as restoring healthy fish stocks and ecosystems by 2015.

INCOFISH focused its research activities on the following Integrated Coastal Zone Management (ICZM) issues: (a) document historical performance of ecosystems to deal with the 'shifting baselines' syndrome and provide sound reference points for resource restoration; (b) provide electronic maps for all coastal species to establish authoritative species inventories and explore scenarios of global change and invasive species; (c) create spatial ecosystem models for all coastal systems treated in this project as a basis for better understanding the resource; (d) provide guidelines and tools for best sizing and placement of marine protected areas; (e) research impacts of ecotourism on coastal ecosystem and provide best-practice guidelines; (e) identify suitable simple indicators to promote and monitor sustainable fisheries; (f) provide valuation of coastal ecosystem products and services and of different management regimes; (g) review legal instruments for sustainable fishing in coastal zones; (h) revisit coastal transects as a tool for structuring and understanding multiple demands on coastal zones; (i) provide an archive and web portal for easy, public access to all data and tools relevant for ICZM.

The tools and concepts resulting from INCOFISH research have been tested in real-world scenarios in selected coastal systems worldwide, including Asia. Together they form a package with the potential to contribute to solving societal problems in coastal zones in Europe and partner regions. Several knowledge products and services of the project linked e.g. to biodiversity and resource conservation have already been picked up outside academia, such as seafood guides accessible through mobile phones.

Among the first initiatives to use fish rulers to help push back the percentage of baby fish being caught and marketed was a case study in the Philippines (Panukat Isda in Tagalog). It's all about not eating babies and enrol cooperation of all stakeholders in the industry to protect their livelihoods by taking better informed fishing and purchasing decisions.



The project ran from 01/04/2005 to 30/04/2008 and was coordinated by Dr. Rainer Froese and Dr. Silvia Opitz of the Leibniz Institute for Marine Sciences in Kiel, Germany. The consortium combined the expertise and experience of 35 teams from the following countries in four continents: Brazil, Chile, China, Columbia, Denmark, Ecuador, Estonia, Germany, Italy, Kenya, Mexico, Namibia, Nicaragua, Norway, Peru, Philippines, Senegal, South Africa, Sweden, Thailand, UK, Uruguay.

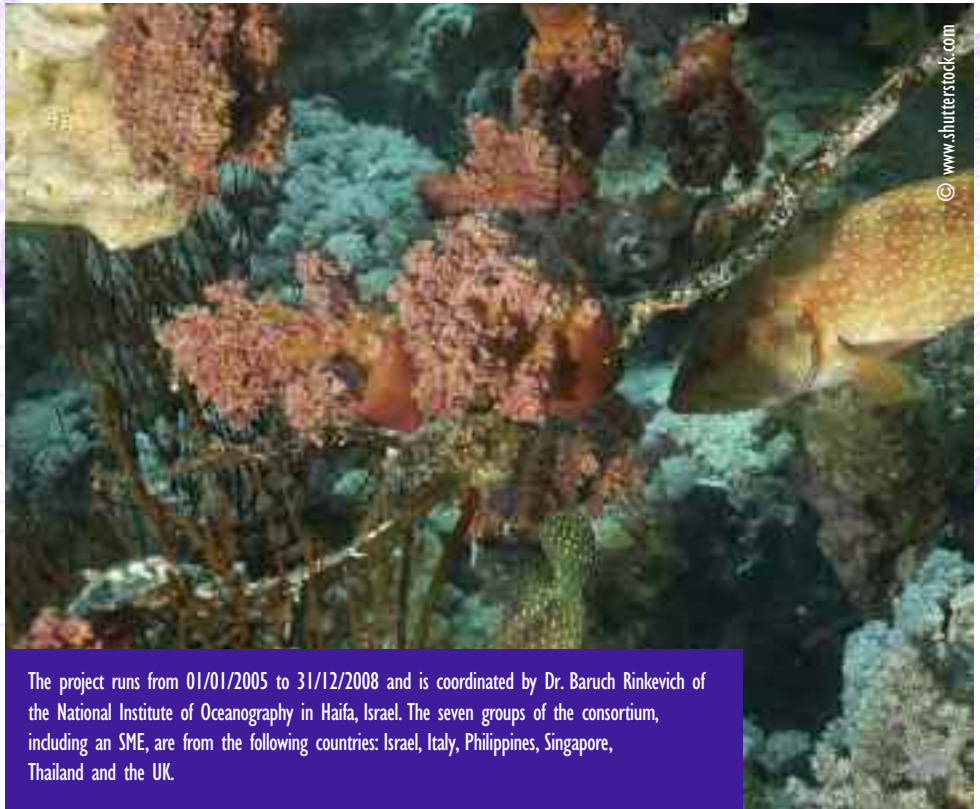
www.incofish.org

REEFRES - Developing ubiquitous restoration practices for Indo-Pacific reefs

Coral reefs are coastal ecosystems that provide the largest source of subsistence to people in the Indo-Pacific region. But most reefs are declining. This creates ecological and socio-economic requirements for urgent restoration, however, efficient restoration techniques are not available. The collaboration seeks to help restore Indo-Pacific coral reefs under the central strategy concept of "gardening of denuded reef areas". In this two-step restoration measure, a large pool of farmed corals and spats is established and cultured for several years on low-profile nurseries; then, nursery-grown colonies are transplanted to degraded reefs.

This is studied simultaneously in four Asian reef areas and under ex-situ conditions. In order to enhance project resource efficiency, the partners teamed as pairs (Asian-EC), each working in a specific site. We are testing the use of branches, coral nubbins and planula larvae and are studying the importance of coral branch sizes for 3-D structures in developing viable colonies.

At the start, much of the knowledge that existed at the coordinator's institution was transferred to the Asian partners to facilitate adaptation to local conditions and continuous new developments. Project results were shared in past consortium meetings and will be further disseminated towards the end of the project through an open conference.



The project runs from 01/01/2005 to 31/12/2008 and is coordinated by Dr. Baruch Rinkevich of the National Institute of Oceanography in Haifa, Israel. The seven groups of the consortium, including an SME, are from the following countries: Israel, Italy, Philippines, Singapore, Thailand and the UK.

ASEM DIALOG – The EU, China and South East Asia Dialog for the development of research areas in animal health of mutual interest

Trans-boundary diseases have the potential for very rapid spread irrespective of national borders, causing serious socio-economic and possibly public health consequences. The past decade has been characterised by several outbreaks of animal diseases (such as Foot and Mouth Disease (FMD), Rinderpest, CSV) with a huge challenge to food security, food safety and animal welfare. In addition, a number of zoonosis occurred and occur around the world, such as Avian influenza, SARS, Ebola and mad cow disease. All of them share the main feature of being diseases common to human and other animal species, domesticated or wild.

The objective of the project is to identify areas of mutual interest for future collaborations between the EU, China and Southeast Asia regarding animal health and food chain safety, by

- a) organising a bi-regional dialogue between Europe and Asia to determine areas of mutual interest in animal health, food safety and traceability;
- b) building expert working groups to identify research and action priorities to be addressed within FP7.

The workshops are organised by an international committee consisting of two European partners and three scientists from the Asian partner countries. They create an enabling environment for a frank and open debate on prevailing animal health issues of relevance to both the EU and Asia and have the following structure: (a) Plenary sections addressing key cross-cutting issues such as the interrelations between economic development, trade and culture in food production, processing and consumption; (b) Oral presentations by key speakers from Asia and the EU, focus on specific target diseases and their implications for public health; and (c). Working groups on scientific and technological requirements to provide innovative solutions to zoonotic problems, by giving priority to interdisciplinary research approaches that merge biological with epidemiological, cultural and economic factors leading towards integrated policy formulation and implementation.



This Specific Support Action under the FP6 Programme on Policies runs from 01/01/2007 to 31/03/2009 and is coordinated by Prof. Jabbar Ahmed of the Department of Immunology and Cell Biology of the Research Center Borstel, Germany. The collaboration brings together 13 teams from the following countries: Cambodia, China, Germany, Lao DPR, Spain, Sweden, Thailand and Vietnam.

RESTORPEAT – Restoration of tropical peatland to promote sustainable use of natural resources

The project coordinated activities of 14 partners from ASEAN and Europe to address global and regional issues of carbon balance, water management, biodiversity and poverty alleviation related to restoration and the management of tropical peatland renewable natural resources on a sustainable basis.

In pursuit of these objectives the problems of fire and inappropriate land use planning were addressed by developing a model fire hazard warning and control system based upon remote sensing. The system was set up so that it would be operated by local communication thanks to increased fire awareness, prevention and suppression. Stakeholder dialogue and skill-enhancing platforms in ASEAN members enhanced local stakeholders' ability to act as guardians of their own environment and its resources.

Among the ground activities were blocking of channels and drains, the restoration of hydrology and ecological functions, the rehabilitation of peat swamp forests and its biodiversity with appropriate scientific support, identification of alternative funding to promote sustainable livelihoods and development of guidelines for sustainable agriculture and forestry. Uptake of the results is still on-going and more impact is expected well after the completion of the project.



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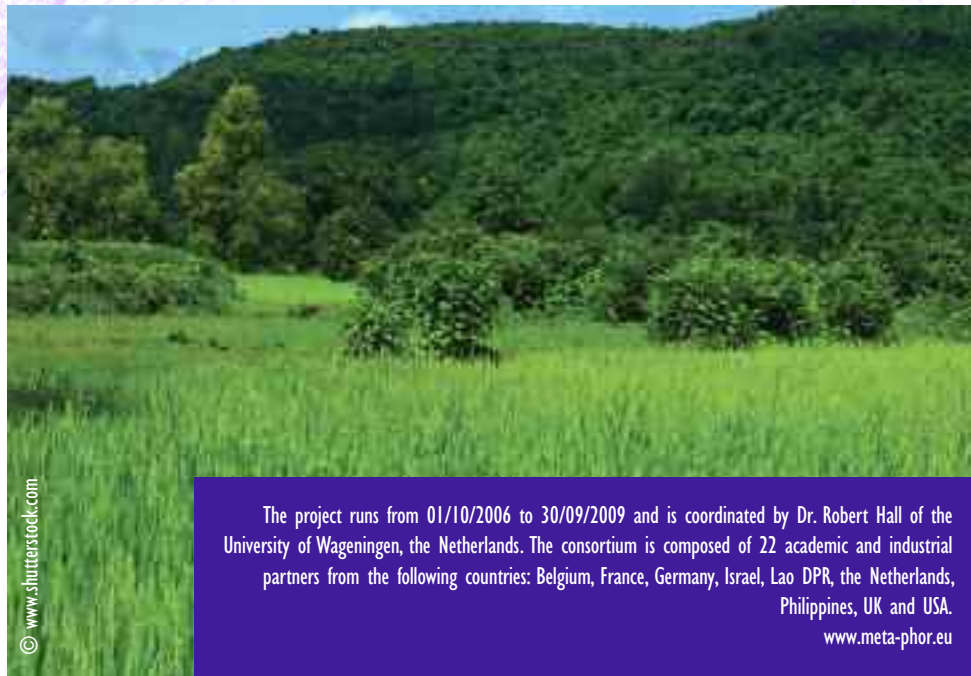
RESTORPEAT ran from 01/11/2004 to 31/07/2008 and was coordinated by Dr. Henk Wösten of ALTERRA in the Netherlands. The consortium drew on the experience of 14 partners from the following countries: Finland, Germany, Indonesia, Malaysia, the Netherlands, the UK and Vietnam.
www.restorpeat.alterra.wur.nl/

META-PHOR - Metabolomic Technology Applications for plants, health and outreach

The project brings together key European players and associated country, Southeast Asian and US partners with a proven track-records in the field of plant metabolomics technology development and application, crop biologists and nutritionists, in a closely focused and coordinated initiative to develop a high throughput metabolite-based phenotyping platform appropriate for the targeted improvement of plant breeding, engineering and processing strategies aimed at a more varied range of food products with enhanced nutritional quality.

In particular, the consortium aims

- To create the research environment necessary to enhance further the collaboration between research groups with an existing dedication to the development and application of innovative, high throughput plant metabolomics tools.
- To provide a means for direct intense interaction between biologists working on nutrition-related, quality aspects of European food crops and technologists working on metabolite and trace element profiling to design dedicated biological / bioinformatics tools appropriate for knowledge generation and decision management systems.
- To establish an integrated, multidisciplinary European-based phenotyping platform with initial focus on nutrition and health-related components, but which has broad applicability.
- To incorporate and combine these activities with those of appropriate international partners and European SME's, which could greatly benefit from having access to such a platform in their own applied research programmes.
- To establish an extensive outreach programme aimed at both science and society, which shall enhance open access to the tools and knowledge generated and to effectively manage the newly generated knowledge.



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The project runs from 01/10/2006 to 30/09/2009 and is coordinated by Dr. Robert Hall of the University of Wageningen, the Netherlands. The consortium is composed of 22 academic and industrial partners from the following countries: Belgium, France, Germany, Israel, Lao DPR, the Netherlands, Philippines, UK and USA.
www.meta-phor.eu

MONIQA – Towards the harmonisation of analytical methods for monitoring quality and safety in the food chain

The MONIQA Network of Excellence seeks to establish durable integration of leading research institutions, industrial partners and SMEs working in complementary fields of detections and methods for food quality and safety. The Network aims at overcoming European and worldwide fragmentation in food quality and safety (Q and S) research by integrating key organisations in a core consortium.

Benefits through dissemination and joint research will also be available to associated partners (=associates). The core consortium (=partners/members) seek to establish mechanisms for coordinating and finally merging research activities, personnel and infrastructure. The industry and SME sector will benefit through application of the harmonised criteria for analytical methods, as will the consumers of high quality and safe food.

The core consortium comprises a network of 30 members. A total of 174 researchers and doctoral students are scheduled for integration into the network with more than 40% of female researchers and more than 55% of female PhD students.



The MONIQA project runs from 01/02/2007 to 31/01/2012 and is coordinated by Dr. Roland Ernest Poms of the International Association for Cereal Science and Technology in Vienna, Austria. The consortium draws in a large and highly diverse group of partners from 11 EU member states (19 partners), two Associated Candidate Countries (three partners), two Associated countries (two partners), one Mediterranean Partner Country (one partner) and four Asia-Pacific countries (five partners). Of the members, 12 are research institutions, 11 are centres of higher education (HE), two are industry partners and five are other organisations (NGO, small companies). Seven SMEs are full partners in the consortium. Ten of the partners have a female leader (about 30%). The teams come from the following countries: Austria, Belgium, Bulgaria, China, Egypt, Finland, Germany, Greece, Hungary, Indonesia, Israel, Italy, the Netherlands, New Zealand, Norway, Poland, Spain, Turkey, UK and Vietnam.

www.moniqa.org

INNOVAC - Highly innovative strategies for vaccination to poverty related diseases

The INNOVAC consortium is developing three platform technologies that will be used for novel and highly innovative methods for vaccination against two of the most important poverty related diseases, TB and Malaria. An important aspect to this proposal is inclusion of a vaccine-producing SME from a developing country. The three platforms are:

- 1) Bacterial spores. Robust and heat-stable bio-particles with proven efficacy as mucosal (i.e. oral or edible) vaccines,
- 2) Bacteria that are able to safely invade human or animal cells and deliver an antigen, e.g. *E. coli* strains and *Mycobacterium bovis* (rBCG),
- 3) Mixtures of unique, self-assembling bacterial proteins into nano-capsules that carry to vaccine.

The consortium focuses on discovery activities including proof of principle studies to show antigen expression, testing of vaccines in vitro (i.e. in the laboratory) as well as challenge experiments in vivo (i.e. in an actual animal). The project will test and evaluate highly novel strategies for vaccination using recombinant systems, some in their infancy, while others are more developed. This project also addresses the construction of vaccine vehicles, their evaluation in animal models, challenge experiments and finally safety tests, where appropriate, to take potential vaccines to the stage of clinical evaluation. Inclusion of a commercial enterprise from a developing platform will enable technology transfer to that partner as well as resources to the European partners.



The project runs from 01/01/2007 to 31/12/2009 and is coordinated by Prof. Simon Cutting, Royal Holloway and Bedford New College, UK. It has seven partners, two of which are SMEs, one each from Europe and ASEAN. The consortium benefits from strengths of teams from the following countries: Austria, Germany, Italy, UK and Vietnam.

www.europabio.euproject.eu/

DENCO – Towards successful dengue prevention and control

An alarming global spread of dengue disease has been ongoing in the last decades, with a substantial social and economic burden to individuals and their societies. This mosquito borne disease is a major threat to public health throughout Southeast Asia and Latin America. The specific objectives of the DENCO project are: (a) to generate new knowledge regarding the association of the virus properties and the clinical spectrum of the disease; (b) to clarify the clinical distinction between mild and severe dengue relevant to clinical response guidelines in view of reducing morbidity and mortality; (c) to test novel vector control tools to reduce mosquito vector densities below epidemic threshold levels; (d) to assess strategies of control approaches with respect to cost-effectiveness, acceptability and sustainability in contrasting environments; and (e) to assess and document the timely translation of research findings into policy and practice.

The multidisciplinary team has designed a distributed work programme accompanied by carefully planned workshops where the data from clinical and field experiments in the affected countries will be brought together, shared and analysed. Expected results include: (a) viral and host determinants contributing to the pathogenesis will be identified through the correlation of disease progression, Dengue Virus (DV) genetic markers and human immune factors; (b) the case classification for dengue disease will be improved and clinical management guidelines reviewed; (c) the efficacy of novel vector control methods will be demonstrated; (d) the acceptability, sustainability and cost-effectiveness of different vector control tools will be determined and the superior strategy/strategies identified; and (e) the approval of revised dengue classification/case management and inclusion of the new vector control methods into modified guidelines by WHO Regional Offices and Headquarters will be facilitated.



The project runs from 01/11/2005 to 31/10/2008 and is coordinated by Dr. Thomas Jaenisch of the University Hospital Heidelberg, Germany. It has eight partners from Belgium, Germany, Philippines, Switzerland, Thailand, UK, Venezuela and Vietnam.

DENFRAME – Innovative diagnostic tools and therapeutic approaches for dengue disease

The main aim of the DENFRAME project is to help improve the management of dengue disease in the human populations in Asia and Latin America. Dengue is the most important vector-borne, viral disease in tropical areas. The four serotypes of dengue virus (DV) each cause human disease and are transmitted by *Aedes* mosquitoes. Epidemics with a high frequency of a severe, life-threatening illness known as dengue hemorrhagic fever (DHF) continue to expand geographically. The disease burden is estimated to be up to a hundred million cases every year, including over 500,000 cases of DHF and about 25,000 fatal cases, mainly in children under the age of fifteen. Despite the increased health and economic impact of dengue, there are as yet no specific preventive or therapeutic interventions and reliable and rapid diagnostic and therapeutic tools for affected people are much needed.

The scientific objectives are aimed at the development and implementation of new diagnostic tools using ligand binding molecules and chemiluminescent biosensor techniques, investigating the innate immune response to dengue virus infection and the development of lead compound inhibitors of dengue virus replication. To this effect two lines of work will be pursued: One concentrates on the standardisation and validation of the current diagnostic assays, the development of new diagnostic tools and the implementation of procedures to validate them using field strains of DV associated with well-characterised clinical data and biological samples. The other one focuses on an integrated approach toward understanding the DV-host interaction and to identify potential therapeutic agents (small molecular inhibitors). Lead components will be identified by screening two existing libraries: one in Europe and one in China (compounds isolated from Chinese traditional medicine).



The DENFRAME project runs from 01/11/2005 to 31/10/2008 and is coordinated by Dr. Laurence Baril of the Institut Pasteur, France. The consortium is made up of 13 partners, four based in Asia, four in Europe, one in the Mediterranean and four in Latin America: Argentina, Belgium, Brazil, Cambodia, China, France, French Guyana, Germany, Hong Kong, Israel, Mexico, UK and Vietnam.

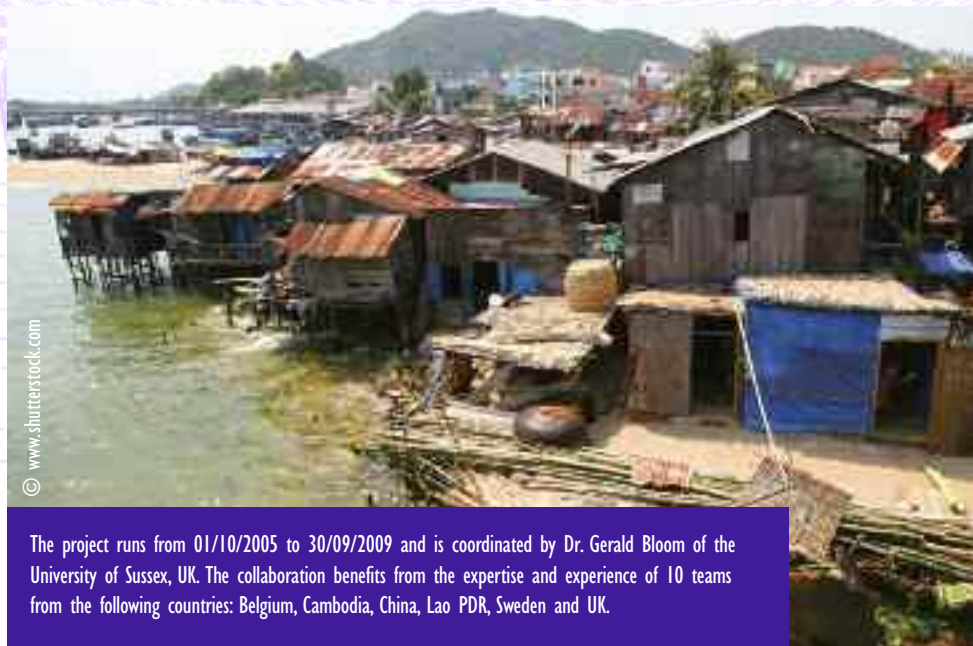
www.denframe.org

POVILL - Protecting the rural poor against the economic consequences of major illness: a challenge for Asian transitional economies

Major illness in the family has become an important cause of household impoverishment in China and formerly centrally-planned economies of Southeast Asia, as these countries have managed the transition to a market economy. This is related to the low levels of government funding of health care and the rising cost of medical care. The Governments of China and Cambodia have recently announced major policy initiatives to address this problem and the government of Laos is considering similar action.

The purpose of this project is to support these initiatives and assess their performance, whilst contributing to international knowledge about how to help households cope with major illness. The study takes place in rural areas in Cambodia, Laos and two provinces in Central China. In each location, the methodological approach is based on in-depth case studies, organised as four integrated sub-projects. The first assesses the impact of different types of illness on different types of household and the effectiveness and consequences of the various coping strategies that they adopt. The second assesses the performance and outcome of health assistance schemes. The third studies how provider-performance, particularly regarding use of drugs, contributes to the high cost of care and identify realistic strategies for reducing these costs. The fourth will assess political and institutional influences on policy formulation and implementation.

Each country team will produce a consolidated report that includes recommendations based on the findings of all the sub-studies. The project is implemented in close communication with policy-makers, local government and NGO managers to ensure it contributes to policy and management practices. It will formulate and implement a dissemination strategy aimed at maximising impact at national, regional and international levels, which will include the establishment of a regional network on social protection and health.



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The project runs from 01/10/2005 to 30/09/2009 and is coordinated by Dr. Gerald Bloom of the University of Sussex, UK. The collaboration benefits from the expertise and experience of 10 teams from the following countries: Belgium, Cambodia, China, Lao PDR, Sweden and UK.

SINCERE – Supporting international networking and cooperation in educational research

The SINCERE project aims at contributing to the consolidation and widening of perspectives, approaches and priorities of a globally open European Research Area in the field of education, training and Lifelong Learning. It does so by supporting international networking and cooperation between teams inside and outside the EU (Latin America and Southeast Asia), researchers and policy-makers, well beyond the specific SINCERE project. This is in recognition of the need for increased synergy and cooperation and internationalisation in educational research. It also reflects the necessity to "restructure" the existing research domains by taking into account innovations taking place in education systems in terms of processes, actors involved and cultural shifts. Other relevant factors are new drivers of change, the outcomes of learning systems expected by society at large. They should combine to enable greater social inclusion.

SINCERE proposes a classification of educational research according to an initial set of eight clusters which goes beyond conventional subject-based approaches. It aims at creating stronger links between educational research and on-going changes and societal and policy levels: (i) new requirements and expectations on learning systems; (ii) Education, training and lifelong learning innovation policies; (iii) Innovation in learning and teaching processes; (iv) New knowledge dynamics at individual, community, territorial and societal levels; (v) ICT contribution to learning systems; (vi) Learning contexts and learning communities; (vii) Learning results and evaluation; and (viii) Learning systems and socio-economic impact.

The international cooperation produced a Green Paper and 'roadmap' setting out proposals and a timetable for international research cooperation guaranteeing respect of local and national cultural and political specificities while at the same time enhancing common understanding on how to address the real educational and socio-economic needs and concerns of citizens.



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The SINCERE project ran from 01/01/2006 to 31/12/2007 and was coordinated by Dr. Claudio Dondi of the MENON Network EEIB in Belgium. The consortium was made up of six partners from the following European, Latin American and Asian countries: Belgium, Brazil, Colombia, Finland, Hungary, Malaysia and Spain.

www.sincere-network.org



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TEIN2 - Trans-Eurasia Information Network

TEIN2 is the first large-scale research and education IT network for the Asia-Pacific. It connects ten countries in the region, and provides direct connectivity to Europe's GÉANT2 network. One of the enormous advantages of today's information age is the ability to engage in meaningful exchange and cooperation with colleagues thousands of kilometres away. Making the most of modern communication tools, such as video-conferencing and visual communication, however, depends on secure, reliable fibre optic computing networks. The TEIN2 project provides the critical link between European and Asian grids, making research collaboration as easy as turning on a computer and thus providing also important support to S&T cooperation.

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