

Articles

Cool Running for Space Scientists

Cool running for space scientists	1
Computer mouse injury research	2
Influence of earthquakes	2
Invention improves lives of children with fatal diseases	3
Improved cell therapy for cartilage repair	3
Aveiro's intelligent jacket	4
Mexican forest rangers	4
Database connects international researchers	5
ECIU Erasmus Mundus programmes	5
Invitation from ConRuhr	6
New multidisciplinary departments at LiU	6
Prepare for life in the real world	7
Prize for Dortmund Junior Business	7
European Institute of Technology	8
EU-Canada agreement	8

Space scientists are a step closer to discovering how planets are formed after carrying out research in zero-gravity conditions.



Dr Helen Fraser on the ESA flight

Dr Helen Fraser, an astrochemist from the University of Strathclyde in Glasgow, is part of an international team working to find out what causes ice and dust particles - the building blocks of Earth-like planets - to stick together in space. They took their specialised equipment on board a European Space Agency plane, dubbed the 'vomit comet' because of its rollercoaster-like motion, to carry out experiments in weightless conditions.

Dr Fraser said, "The experiments were very successful, and as they were the first of their kind, we're particularly excited about analysing the results. The equipment worked brilliantly. People have for centuries been trying to understand the origins of life, and we hope our work will bring us closer to understanding the central question of how planets are created, providing a platform for the emergence of life."

The experiments involved firing grainy particles together in the absence of gravity at slow speeds, to find out whether they would stick. A high speed camera recorded the particles colliding. It would not have been possible to get the particles anywhere near each other at slow speeds in a lab, as gravity would simply force them to the ground. As a result, the European Space Agency invited the team to board a zero-gravity flight.

The plane soared to 30,000 feet at a sharp angle before plunging 8,000 feet, allowing the team to experience 20 seconds of weightlessness during the descent. This process was repeated 30 times on each of three flights, allowing the team to carry out their experiments.

Dr Fraser said, "What we did was rather like banging balls of tiny sand grains together in zero-gravity conditions. Rather than the grain aggregates flying apart in thousands of pieces, as balls of sand do when you throw them on the beach, they simply brushed past each other and continued intact on their travels. Occasionally we could see smaller pieces of dust sticking to larger sandy aggregates, but it's

clear we can not build large rocky planets like the Earth in this way - the process simply takes too long. Furthermore, when small sandy particles were fired into larger, stationary targets, resembling collisions with larger asteroids, they tended to rebound, fragment and even compact, but never stick."

The team now plans to use the equipment again to carry out similar collisions in very cold conditions. They believe it may be the ice and freezing conditions of space that causes particles to stick together and eventually form planets.

The experiment was initiated by Masters students from the Universities of Leiden and Groningen in the Netherlands, from ideas proposed by Dr Fraser and her German collaborator, Professor Jurgen Blum and his team at Braunschweig University in Germany. Different sections of the experiment were built in each of the three countries before being brought together for the weightless flight.

Dr Fraser added, "Working in zero-gravity conditions is not easy, but the European Space Agency staff were fantastic and we're delighted with the success of the experiments."

Source: Strathclyde University press release, 08/11/06

Research profile: Universiteit Twente

The latest in our series of ECIU research profiles has been provided by Universiteit Twente, The Netherlands. Twente focuses its research in six key areas from Nanotechnology to Governance Studies. For further information, please refer to the research profile supplement.

Please feel free to mail articles or other input for the next ECIU newsletter to:

fiona.m.campbell@strath.ac.uk

The next edition will be published in March. Deadline for submitting articles: **2 March 2007.**

Breakthrough in computer mouse injury research

Many people suffer from aching arms, shoulders and necks which impair their health and mood as well as job performance. Now, scientists at Aalborg University have carried out ground-breaking research in this area.

This little device – the computer mouse - which makes working with a computer so much easier may in fact damage us. According to Danish figures, among people between the ages of 20-29, more than a third suffer from pain related to use of the computer mouse. Therefore, such injuries can occur rather early in one's working life, weakening one's muscles at an early stage. In order for ever younger people not to click their way to chronic pain, something must be done.

Over time, science has often discussed how to prevent computer mouse injuries. Unfortunately, research has not been able to discover successful methods, mainly because we do not understand precisely how injuries occur and why they become chronic. However, at Aalborg University in Denmark, highly acclaimed scientists have carried out a revolutionary study which can give us the answers.

At the Centre for Sensory-Motor Interaction (SMI), Department of Health Science and Technology at Aalborg University, five innovative scientists have carried out a study which is the first of its kind showing usable and forward-looking results within the area. This study, by Drs Pascal Madeleine, Frédéric Leclerc, Lars Arendt-Nielsen, Phillippe Ravier and Dario Farina, is expected to receive great international attention. The purpose of the study was to delineate a whole muscle's reaction to pain and to further provide working hypotheses regarding why computer mouse injuries can become chronic.

Such research must be done prior to comprehending how we prevent these injuries. This particular study is thus critical to the enhanced understanding of pain related to the injuries, and hence, it may pave the way for discovering a way of curing them.

The study was carried out by the use of subjects sit-



Now, chronic pain stemming from this action may be cured

ting, doing a well-controlled task. Concurrent with this, their muscle activity was assessed using new, advanced measuring techniques.

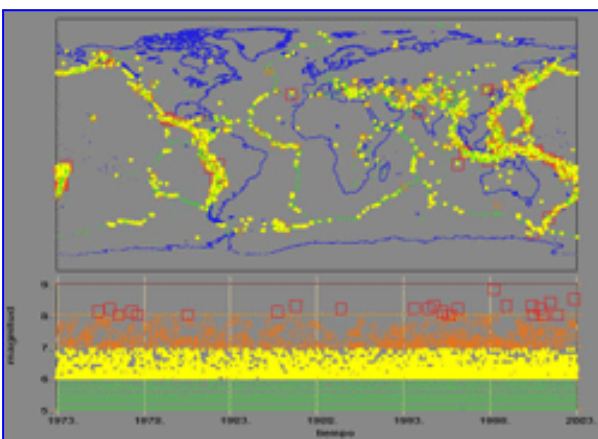
The study shows that the muscle in pain re-programmes its function in relation to muscle pain. In other words, when a muscle is hurting, it changes; its protection mechanism deadlocks, leaving the muscle in question unable to fight the pain.

The risk factors for computer work injuries may be divided into physical and psychological. As such, both repetitiveness of work and time pressure may add to the development and maintenance of pain.

The cutting edge study from Aalborg University may give hope to the many who experience pain on a daily basis and whose work performance is affected by it. Therefore, the study is of immense importance, not merely in the scientific world, but in the world in general. The inventive pioneers of Aalborg University have thus constituted the basis for helping millions of people.

Tine Tindal, Aalborg Universitet

Area of influence of earthquakes could be larger than thought



Dr Álvaro Corral, a Ramón y Cajal researcher in the Department of Physics, Universitat Autònoma de Barcelona, studies the relationships between the time and place of earthquake occurrences (i.e. the jumps between an initial earthquake and another earthquake at a later time in another place) using statistical physics methods. By analysing data on the distance between consecutive earthquakes, Dr Corral has concluded that the area of influence of seismic activity could be larger than was thought until now. The result of his work has been published in *Physical Review Letters*.

Further information: www.uab.es. Follow links to News then Research.

Source: UAB press release, 15/11/06

Invention improves lives of children suffering from fatal diseases

Two former students from the Institute of Architecture & Design at Aalborg University, Denmark have won the prestigious international design award, the Red Dot Award 2006. Kasper Nedergaard Sørensen and Kasper Matthison-Hansen invented a new mobile infusion therapy system, designed for children suffering from fatal diseases. The system is called the iVOU, 'A little helper' in Latin, and provides hospitals with an alternative to current infusion therapy equipment.

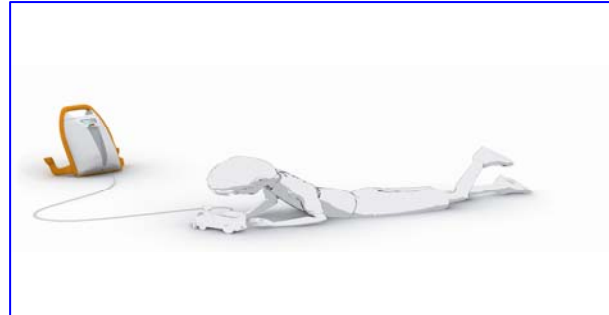
The researchers were writing their thesis on industrial design when they came up with their innovative infusion therapy equipment for children. The two had always seen design as a way to improve the quality of lives for others and thereby make a real difference. Their invention indeed reflects this intention – and goes well beyond appearance and aesthetic form.

Their thesis focused specifically on the creation of medical equipment for children admitted to hospital. During research at the paediatrics unit for cancer patients at Aalborg Sygehus, they saw the urgent need to improve the conditions for e.g. children with cancer and dramatically improve their quality of life while in hospital. In particular, an interview with an eight-year-old cancer patient and his father had a great emotional impact on the two civil engineers. Crucially, the interview motivated them to invent the mobile infusion system and therefore to meet the emotional and physical needs of children - with the intention of helping seriously ill children to a quick recovery and making their stay in hospital more pleasant.

More than anything children want to be able to move around freely and play. However, having to be chained to a large, scary, and immobile frame is the reality facing fatally ill children when they are admitted to hospital. The iVOU represents a brilliant alternative to traditional infusion therapy equipment. It is formed as a backpack in bright colours designed especially for children from the age of three. Thus, through its mobility, the iVOU represents an ingenious design that makes it possible for children to be free and fully active while receiving vital fluids intravenously.

The mobile iVOU system contains all the vital fluids

and pumps needed for infusion therapy, and besides being practical, it is also secure and provides precise treatment. The traditional infusion therapy equipment is not very stable when used in treatment of children. When children move around and play the rubber hoses tied to the traditional infusion frame might block or fall off the frame. Both are serious and critical factors that might cause infections and prolong time in hospital.



The iVOU allows children the freedom to move around and play while undergoing intravenous infusion therapy

In November Kasper Nedergaard Sørensen and Kasper Matthison-Hansen went to Singapore to receive their Red Dot Award in the category 'Design Concept'. The award offers talented designers from around the world the opportunity to present their new concepts and creative designs on an international level. The purpose of the award is to identify and promote the latest innovations, design ideas and visions and to pay tribute to the potential and creativity of up-and-coming talent. Thus the award is not concerned with products that have already been introduced to the market. The number of entries grows each year, and this year 478 submissions were received from 40 countries.

By winning the Red Dot Award: Design Concept Kasper Nedergaard Sørensen and Kasper Matthison-Hansen have truly distinguished themselves from other designers around the world, and set the standard of future design directions and trends in regard to industrial design.

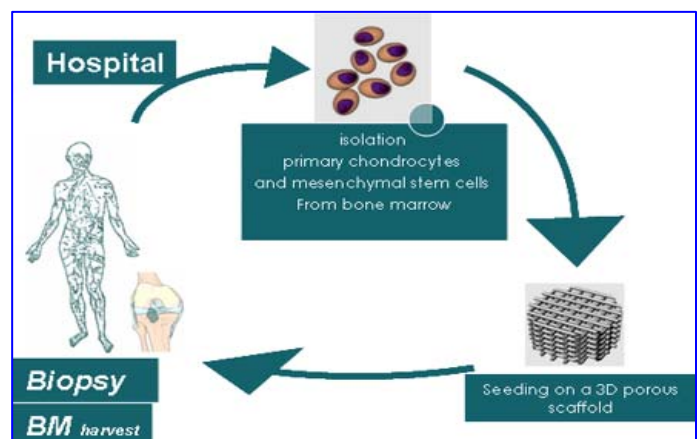
Jette Wæring Petersen, Aalborg Universitet

Improved cell therapy for cartilage repair

Artificially cultured cartilage cells, grown outside the body for repairing damaged tissue, prove to be different from original cartilage tissue. Cell therapy may be successful, but the added tissue performs worse than the original. PhD student Jeanine Hendriks of the Universiteit Twente's Institute for Biomedical Technology has developed a better method. She adds primary cells, still 'knowing' how to form a cartilage matrix, to the cultured cells. This seems to be a promising technique for improving cell therapy results.

Further information: www.utwente.nl/nieuws/pers/en/cont_06-052_en.doc/

Source: Universiteit Twente press release, 29/11/06



University of Aveiro develops the intelligent jacket

Developed by the Institute of Electronics and Telematics Engineering (IEETA) of the University of Aveiro, the "Vital Jacket" appears as a pre-product that brings together textile technology and micron-electronics to allow the assessment of the vital variables of its user, no matter where he or she might be.

The vital signals of the heart, temperature, oxygen saturation in the blood and the physical activity can continuously be analysed through electronic and computer systems attached to this piece of clothing by means of wireless communication.



The Vital Jacket

The Vital Jacket was created on the basis of a concept developed by the Health Information System Group (www.ieeta.pt/sias), with the micron-electronics, computer science and communications components developed later. The Centro Tecnológico das Indústrias Têxteis de Portugal (CITEVE), was asked to be responsible for the design and for the textile manufacture of the final parts of this product.

The Vital Jacket was conceived with the paradigm of the so-called "House of the Future" in mind, as it is also complemented by a different, connected "home-monitoring system". For example, we can have a unit that measures the arterial pressure connected to scales and an automatic supplier of medicines, but it is also possible to form less obvious connections.

This wearable unit was tested in real and clinical environments with the collaboration of the modern Hospital S. Sebastião, in Santa Maria da Feira, a town close to Aveiro. Patients, firemen and sportsmen are considered to be an important part of the target users for this intelligent product.

The Vital Jacket was recently presented at one of the most important textile fairs in Portugal - the Modtíssimo, where it was much applauded. At present, "Vital Jacket" is already an EU trademark, submitted by the University of Aveiro, and it is ready to become a successful cardigan in the near future.

Ana Bela Dias, Universidade de Aveiro

Forest Ranger Robots Worthy Heirs to Smokey the Bear?

How can we harness technology to safeguard forests? That is the very question that six Tecnológico de Monterrey students asked themselves when they began working on their forest ranger robot project.

Cuernavaca Campus Information Technology and Computer Science Graduate Programme Director Dr. Fernando Ramos was the driving force behind his students' willingness to pursue research projects.

The premise of detecting a forest fire in its early stages, and thus getting it under control sooner, underpinned the creation of the QK, the ecological robot brainchild of these students, who had Dr. Ramos as their advisor.

Dr. Ramos has been involved in developing the Research in B.A. Promotion Project (PROFIL), an educational model that allows students to participate in relevant projects while pursuing their Bachelor of Arts degrees. With the Problem Based Learning (PBL) technique as its cornerstone, students are guided in international competitiveness projects.



One of the robots in action

This method has proven so successful that a group of students will compete in the 8th International Robot Olympiad, December 6-9, 2006, in Australia's Gold Coast, where the QKs will try to come away with a top prize in one of the most challenging categories, Creativity Robots, that has "Keep our planet clean and green" as its theme this year.

'The point of participating in events such as this one is to inspire students to develop robotics projects that have a social impact', Dr. Ramos explains.

Source: Tecnológico de Monterrey press release, 09/11/06

New database connects international researchers

What began as a TAFE student software project and has now become a major international resource for scientists was launched at Swinburne University in November.

The Protein Folding Database (PFD) collects all protein folding data into a single, accessible public resource that contains annotated data for more than 50 proteins. The system was developed by a team of five TAFE software development students in collaboration with the Victorian Bioinformatics Consortium (VBC).



Some of the key members of the Protein Folding Team

Understanding the rules that govern protein folding is seen as one of the great challenges of molecular biology. Protein folding is an extremely complicated process, involving the self-organisation of thousands of atoms into a precise structure. Incorrect folding can result in disease, so understanding how a protein

folds up is seen as one of the great challenges of medical science.

Swinburne TAFE computing teacher and the student team mentor, Richard Forster said the software program was making a real difference to researchers: "Software tools such as those developed by Swinburne's bioinformatics collaboration are vital for assisting and managing the cooperative experimentation that is central to our research. The PFD is the first system of its type in the world. It allows scientists to deposit their own folding data, and gives them free access to all data."

PFD is the fifth system developed by Swinburne students for researchers. Other systems such as REFOLD and CLIMS have been steadily developing an international profile among researchers. REFOLD, a web portal that helps researchers produce properly folded proteins for biotechnology is used throughout the world. CLIMS is a software tool for protein crystallography and has been used to help manage the experiments that are undertaken at synchrotrons in the US, which will also be conducted at the new Australian Synchrotron near Monash University in 2007.

Attending the launch was Professor James Whisstock who was awarded the 2006 Australian Science Minister's Prize for Life Scientist of the Year. Professor Whisstock praised the students for making such a valuable contribution to the biological research field.

Sue Fujino, Swinburne University

Joint Masters in Material Science – an outstanding programme

In 2004, under the ECIU Graduate School umbrella, a new type of masters was initiated – a European Joint Master Programme in Material Science (EMMS) – delivered by three of the top European universities in this area: Hamburg University of Technology (TUHH), Universidade de Aveiro (UA) and Aalborg University (AAU). On the basis of the outstanding academic quality, the strong European component and the well structured mobility, the EMMS was selected as one of the few Erasmus Mundus Masters Programmes.

In the first year 4 students enrolled at TUHH and 11 at UA; in 2005 the numbers almost doubled. The two-year masters specialises in science and engineering of ceramics, metals, polymers and composites with a special emphasis on materials for electronics, biomaterials, nanotechnologies. The programme not only offers the best technical courses, it also includes a variety of cultural and management courses. Students follow two semesters of lectures and practical courses, spend one semester as interns in a private company and then concentrate on the masters thesis. They must spend at least one semester at one of the other partner universities. The programme offers Erasmus Mundus scholarships for students of exceptional merit.

In summer 2006, the first cohort of students graduated

"magna cum laude". Some of them received particular rewards for their success: those who finished at Aalborg University received PhD scholarships enabling them to continue their studies in Denmark.

It is evident from the first two years that the programme has been successful: both professors and students have expressed their satisfaction. Everybody has stated that they have gained much more experience than from regular masters programmes. "To participate in the Programme is for me not only a big chance to improve my technical knowledge, it is also the opportunity to grow up as a person. I have met a lot of friends and I learned how to work with people from different countries and cultures. EMMS gives me the chance to grow in different aspects of my life. It is a well balanced programme which not only includes technical subjects, but also cultural ones. This characteristic helps me to be better in my profession and as person, a person who is able to work and compete in a global world" (Ricardo from Mexico).

Tanaselea Loredana, Aalborg Universitet

Read about the launch of a new ECIU Erasmus Mundus programme in Environmental Studies at <http://www.tuhh.de/eciu-gs/index.html>

Scientists and Journalists Accept the Invitation from ConRuhr

German and American science journalists met for the "Atlantic Conference on Science Journalism" in October. ConRuhr, the New York liaison office of the Universities of Dortmund, Bochum and Duisburg-Essen, organised the meeting where authors and editors from the New York Times, Nature, Science, Der Spiegel, Scientific American, Frankfurter Allgemeine Sonntagszeitung, Nova TV and Westdeutscher Rundfunk (WDR) discussed the cultural background of science communication.

"Science and sport journalists have in common the task of reporting on key figures and the latest events," John Rennie, chief editor of *Scientific American*, pointed out in his lecture. The fast-paced development in science makes it necessary that "we run faster at least to stay still."

In her lecture "The Other Experts" Katja Timm, *Der Spiegel*, presented an unusual perspective: in a report about stroke patients she had centered on the patients and their relatives. According to Timm, "This strategy gives a very intimate insight and poses the question: how much personalisation is justifiable?"

In New York the discipline of science journalism was represented by Professor Holger Wormer. His appeal to the reader: "Scientific reports can only examine single aspects. The reader has to be aware of this fact and must not be uncritical."

Thomas Hallet, WDR, and Andy Revkin, *New York Times*, broached the issue of the political dimension of scientific topics in the media. According to Hallet, "Policy needs science journalism – as an early warning system." He mentioned the reporting on bird flu in Germany as an example.

"The meeting was very successful" Prof. Dr. Rolf Kinne, Director ConRuhr, stated. "Besides excellent speakers we had a very interesting audience. There was an intensive exchange, so we could not only build a bridge

over the Atlantic but also between scientists, journalists and politicians." Among the 70 or so visitors were representatives of Columbia and New York Universities, *Business Week*, the *United Nations Chronicle* and the Bertelsmann Foundation.

During the exhibition which was part of the conference, the participants took the opportunity to catch up on the study opportunities and the research activities in the Ruhr Valley.

The ConRuhr-meeting is part of the event series "Atlantic Transfer – Great Ideas are Mobile", which is supported by the Volkswagen Foundation.



Conference participants in New York
Photo: Dino Trescher

Further information:

http://www.atlantic-transfer.org/new_york.html;

Prof. Dr. Rolf Kinne, Director ConRuhr; email kinne@conruhr.org

Source: *Universität Dortmund press release, 16/10/06*

Major multidisciplinary departments at LiU

An interfacing, multidisciplinary department will be set up at Linköping University (LiU) to encompass the educational areas of business management and economics and relevant technology disciplines. This is the most sweeping change put forth by the reorganisation plan from the University Board. Changes will come into effect at the turn of the year.

The overarching department, which with 400 employees will be LiU's largest, will incorporate the present Departments of Management and Economics, Mechanical Engineering, and Production Economics. The Division for Information Systems and Management will also be included. The new department will bring together teaching competencies in the fields of business management, business law, logistics and quality control, along with production and design expertise. This will equip LiU education with a knowledge profile well suited to deal with the key issues that will confront Swedish trade and industry in the foreseeable future.

The reorganisation objectives also decree the creation of a department for didactics, pedagogics and the education of future educators. The Tema Institute (an interdisciplinary research institute) will also be reshaped and reinvigorated. Mille Millnert, President of Linköping University, has commissioned a task force to draw up guidelines for the size, resources and organisational criteria that will identify the theme-bearing force of the Tema units.

All three new multidisciplinary departments will be launched on January 1, 2007. An organisational board will provide leadership for each of the new departments and equip them for their future tasks. The boards will conduct a situation analysis to ascertain the staffing needs of the new departments.

Source: *Linköping Universitet press release, 31/10/2006*

Prepare for life in the real world at Swinburne

The Curriculum Framework Project (CFP) at Swinburne University of Technology was recently the focus of discussions at the university's Academic Board, with approval given to a range of initiatives that will give students new options to widen their discipline specialisations and to speed up, slow down or spread out their studies to suit their lifestyles.

The CFP is a targeted curriculum renewal process in support of the Swinburne model for professional learning, offering undergraduates a distinctly Swinburne-based approach to professional education based around 'Real World Learning'. Significant changes to the undergraduate curriculum will be in place for the 2007 intake.

The Project takes into account:

- Swinburne's strong professional, industry and community connections into its teaching programmes;
- Swinburne understanding of the needs and priorities of contemporary students (local and international);
- Swinburne as a modern, entrepreneurial university which offers a supportive and informal learning environment;
- Swinburne's demonstrated expertise in learning and teaching and in applied research, and also in providing cooperative education (Industry Based Learning);
- Community and government expectations in terms of students graduating with strong career skills and outcomes;
- Opportunities presented by Swinburne's relatively small size (in Australian terms) to develop a coordinated approach to professional education across all teaching programmes.

Key initiatives so far include:

- New options for students to pursue interests outside their major disciplines that strengthen their employability and broaden their career skills. Themes include: establishing and running a business, design process and strategy, multimedia and internet skills, research skills and effective communications;
- Increased focus across the curriculum on 'real world' learning experiences including a wider range of professional placements, internships, international study tours and exchange opportunities, profession-based competitions and case studies;
- Greater emphasis on experiential learning involving hands-on projects, case studies, group discussions, debate, reflective journals, and presentations;
- Strengthened industry connections into the curriculum, and career skills development integrated even more firmly into undergraduate teaching.

The Swinburne model for professional learning will allow Swinburne to stand out from other local universities to give prospective students clear choices, in line with the Australian Government's desire for a more diverse higher education system. It builds on Swinburne's applied and industry-based learning strengths by offering undergraduates degree programmes that provide clear professional outcomes within a supportive real world learning environment.

Further information: Associate Professor Margaret Mazzolini, Director Curriculum Development and Deputy Head (Higher Education), mmazzolini@swin.edu.au, or visit <http://www.swin.edu.au/professionallearning>.

Swinburne University Press Office

Top Business Prize for Dortmund "Junior Business School"

During a ceremony which was attended by the permanent secretary of state of the German Ministry of Education, the initiative prize "Education and Further Education 2006" was presented to Professor Andreas Liening (Vice Dean, Faculty of Economics and Social Sciences, Universität Dortmund) for his project "Junior Business School".

In cooperation with the Martin-Luther-King Comprehensive School, this project prepares pupils for the working world and for study.

Together with his co-workers, Professor Liening, Chair of Business Administration and Economic Education, developed the concept of the Junior Business School to give upper school pupils a basic understanding of business economics in an individual and flexible way using new media. "For us it is important that learners improve their job start and their career prospects. Practice-oriented case studies and realistic problem definitions intensify the learning process," project co-worker Ewalt Mittelstädt explains.

Working with the Martin-Luther-King Comprehensive School and the iLearning GmbH in Dortmund, the project will run for one school year and will lead to different kinds of awards ranging from a certificate of attendance to an accredited certificate.

For pupils, the Junior Business School is good preparation for the changing world of work. "We want to deepen our business knowledge and hope to improve our training opportunities," one of the participants explains. They will be supported by a tutor: Martin Kirchner, a student assistant and a tutor himself, points out, "We can always be contacted and we visit the group twice a month in school". Participating in the Junior Business School should be an advantage for the pupils in respect to future applications and study – this was the main reason for honouring the Dortmund economist.

Further information: Ewalt Mittelstädt, Tel. +49 (0)231 755 - 5256

Source: Universität Dortmund press release, 15/11/06

European Institute of Technology: latest developments

The European Institute of Technology (EIT) has moved a step closer to realisation. In October, the European Commission put forward a proposal, accompanied by an impact assessment, for a Regulation of the European Parliament and the Council to establish the EIT. The proposal has been adopted at an informal meeting of EU heads of state and government in Lahti, Finland.

The EIT aims to bring together research, education and industry and to make the EU competitive in its transdisciplinary and interdisciplinary research. It will also aim to provide a reference model for existing institutions and research centres and 'will seek to become a symbol of the integrated European Innovation, Research and Education Area'. The Commission has confirmed that the EIT will have an 'integrated, two-level structure':

- A small governing board, including "high-profile" people from business and science, and a team of scientific and support staff, to set the overarching strategic priorities and manage the processes;
- Knowledge and Innovation Communities (KICs) which will be long-term strategic partnerships between research and industry and will have autonomy, while fulfilling the EIT's strategic aims. KICs will be selected by the governing body.

The most significant development is the announcement of the timetable and the budget. The target is to have the proposal adopted by the European Parliament and the Council of Ministers by the end of 2007 or the start of 2008. The EIT would then become operational in 2008, with the first KICs beginning in 2010-2011 and six KICs underway by 2013.

The overall budget of the EIT for the initial period is estimated to be around €2.4 billion. This will come from a variety of sources, including a contribution directly from the EC budget (around €318 million) and contributions from the private sector. KICs will also be encour-

aged to apply for funding competitively from relevant programmes such as the Seventh Research Framework. Through the coordination of the Governing Board, the EIT will aim to ensure synergies and achieve the best possible use of resources.

The updated proposal has had a mixed reception, and there have been criticisms from the university sector and industry. Euractiv.com reports that business, which is expected to contribute around €2.1 billion, wants to know what the incentives are for it to participate in KICs and where the private-sector money will come from: although the European Chambers of Commerce support the initiative in principle, they have asked for these funding and incentive questions to be addressed. Universities UK, the body which represents UK university vice chancellors and principals, welcomes some of the developments, but questions the fact that KICs would be able to apply for European Framework Funding and that there might also be an impact on the European Research Council budget: this could be to the detriment of other types of research.

According to the Guardian newspaper, President Barroso would like one of the KICs to work on fighting climate change, and he considers other important themes to be nanotechnology, computer software or biotechnology: these themes therefore may well be the first strategic priorities to be set by the EIT's governing body.

Further information:

EC: http://ec.europa.eu/education/policies/educ/eit/index_en.html

Guardian: <http://education.guardian.co.uk/higher/>

Euractiv.com and European Chambers of Commerce: <http://www.euractiv.com/en/education/businesses-invest-eit/article-158897>

Fiona Campbell, Strathclyde University

EU-Canada relations: signature of new agreement

At an informal education ministerial meeting in Helsinki on 5 December 2006, a new eight-year education agreement was signed between the EU and Canada. It not only renews their long-standing cooperation programme in higher education and vocational training, but also expands it to include youth measures.

The European Commission plans to allocate almost €18 million to the co-operation programme between 2006 and 2013 to implement some 210 projects and to allow 4,430 EU and Canadian people to participate. The following actions are specifically foreseen:

- *Joint consortia projects*, providing support to multilateral partnerships of EU and Canadian institutions for the purpose of setting up joint study programmes - including joint/double degrees - and transatlantic mobility of students and faculty;
- *Joint youth activities* relating to key themes such as citizenship, cultural diversity, community work/volunteering, and recognition of non-formal

and informal learning;

- *Policy-oriented measures*, addressing comparative higher education, vocational training and youth issues, and promoting dialogue on recognition of qualifications and the transfer of credits under the European Credit Transfer System (ECTS);

The EU and Canada have been running a joint cooperation programme since 1995. The programme's core activities are joint curriculum development and student exchanges in areas such as Biotechnology, Computer Sciences, Culture, Engineering, Environment and Energy Studies, Forestry, Health Care, International Education Development, Journalism as well as Migration and Identity.

Further information: http://ec.europa.eu/education/programmes/eu-canada/index_en.html

Source: EC press release, 5/12/06

ECIU Secretariat
c/o University of Strathclyde
16 Richmond Street
Glasgow G1 1XQ, Scotland
Phone: +44 141 548 2833
Fax: +44 141 552 0775
E-mail: saskia.hansen@strath.ac.uk

ECIU Members & Partners

Aalborg Universitet, Denmark

www.aau.dk

Universidade de Aveiro, Portugal

www.ua.pt

Universitat Autònoma de Barcelona, Spain

www.uab.es

Université de Technologie de Compiègne, France

www.utc.fr

Universität Dortmund, Germany

www.uni-dortmund.de

Technische Universität Hamburg-Harburg,
Germany

www.tu-harburg.de

Linköpings Universitet, Sweden

www.liu.se

University of Strathclyde, United Kingdom

www.strath.ac.uk

Politecnico di Torino, Italy

www.polito.it

Universiteit Twente, The Netherlands

www.utwente.nl

University of Warwick, United Kingdom

www.warwick.ac.uk

Tecnológico de Monterrey, Mexico

www.itesm.mx

Rostov State University, Russia

www.mis.rsu.ru/foreign

Swinburne University of Technology, Australia

www.swin.edu.au

Tecnológico de Monterrey honoured as best in educational service sector

The Mexican National Chambers of Commerce, Services, and Tourism Confederation singled out the Tecnológico de Monterrey as the number one institution in Mexico's educational service sector. Mexican President Vicente Fox presented the award to Dr. Rafael Rangel on 21 November in Mexico City.

Further information: <http://cmportal.itesm.mx/wps/portal/english>. Follow link to News.

Source: Monterrey press release, 27/11/06

Conferences

- 6-7 December 2006 Formulation des Solides Divisés: des procédés aux propriétés d'usage, Compiègne
- 8-9 December 2006 Workshop on Ethics and Nanotechnology, Linköpings
- 17-21 June 2007 13th International Conference on Thinking, Linköpings
- 21-23 June 2007 European Computing and Philosophy Conference, Twente

ECIU Activities

A number of project meetings or seminars have taken or will take place over the coming months:

- ECIU PR meeting, 17-19 January, Aveiro
- DIFUSE, 22-23 January 2007, Torino
- ENTICE, 6-7 February, venue tbc
- ECIU Leadership Development II, 12-14 February, Hamburg
- Meeting with representatives from DG Culture & Education, 26 February, Brussels
- ECIU Leadership Development III, 25-27 April, Strathclyde
- ECIU General Meeting, 24 May, Rostov
- ECIU Executive Board meeting, 25 May, Rostov
- ECIU 10th Anniversary and Executive Board meeting, 31 October—2 November
- A series of meetings under the umbrella of the ECIU Graduate School

Please read more about the ECIU and these activities on the website: www.eciu.org

Editors and contributors:

Jette Wæring Petersen, Tanaselea Loredana, Tine Tindal and Lotte Finck, Aalborg; Ana Bela Dias, Aveiro; Lars Holberg, LiU; Adam Taylor and Rose-Marie Barbeau, Strathclyde; Ole Lünemann, Dortmund; Sue Fujino, Swinburne; Wiebe van der Veen, Twente; Alla Batchenko, Rostov; Fiona Campbell, Strathclyde; Saskia Loer Hansen, ECIU Secretariat.