

SwissCore Synopsis

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◆ Seen from Brussels

Major initiatives moving ahead?

May has seen some movement in the major current initiatives of the European Commission: First of all, the planned European Institute of Technology (EIT) seems to have gained steam. The proposal of the German EU Presidency to establish the EIT in two steps (see Synopsis 2006/1) has convinced the Council of Ministers, which held an exchange of views on this subject during the Competitiveness Council of 24-25 May. The Council instructed its preparatory bodies (the Research Group and the COREPER) to continue their work in order for the Competitiveness Council to reach an agreement on a general approach (political agreement) at its next meeting on 25-26 June. The most critical point remains the budget, as the planned €308 million have to be found in the unallocated margins of the EU Financial Perspectives.

These budgetary margins might however be eaten up by the Galileo project, which is currently in need of further public money. The European Commission and the Transport Council (Council of Minister) indeed foresee to finance the Galileo project entirely with public money, since the industry partners could not reach an agreement, jeopardising this way the entire project (see article p. 4).

On the brighter side, the European Commission has finally tabled the first two proposals for Joint Technology Initiatives, which had been expected since end of last year (see article below). This entirely new funding scheme within the 7th Research Framework Programme (FP7) brings together industry and public partners in a specific field in an effort to address industry's shortcomings in research and development (R&D). The European Commission has put forward proposals in two of the most promising fields of European industry, namely embedded systems and pharmaceuticals. These initiatives might set the grounds for a novel joint implementation of research programmes by the private and the public sector and might lead to an increased collaboration between industry and academia.

The text of the German Presidency compromise proposal on the EIT can be found under:
<http://register.consilium.europa.eu/pdf/en/07/st09/st09444.en07.pdf>

◆ Research *7th Framework Programme (FP7)*

First two JTI proposals tabled: ARTEMIS and IMI

On 15 May, the European Commission published the highly expected first two proposals for Joint Technology Initiatives (JTI). These first two JTI, ARTEMIS (Advanced Research and Technology for Embedded Intelligence and Systems) and IMI (Innovative Medicines Initiative) had been in the pipeline since the end of 2006, when an unofficial document of the European Commission identified them as the "frontrunners" amongst a group of six planned JTI (see Synopsis 2006/5). JTI are a new form of research funding scheme under FP7 and are based on a close collaboration with the industry in a specific field. The industrial partners identify their research needs for the next 10 years and publish these as a Strategic Research Agenda (SRA). Six such projects had been identified by the European Commission during the drafting of the FP7 proposal as potential candidates for a JTI.

The SRA of the proposed JTIs will be implemented through Joint Undertakings (public-private partnerships based on Art. 171 of the EU Treaty) bringing together the industry partners and the European Commission. For this, both the ARTEMIS JTI and the IMI JTI will establish Executive Offices in Brussels; these will issue calls in the fields relevant for the SRA, oversee the evaluation of the proposals which will be received, and take care of entire grant administration. Despite these commonalities, the two proposed JTI differ in some major points:

- Advanced Research and Technology for Embedded Intelligence and Systems: As its name implies, ARTEMIS will fund projects bringing together industry, SMEs and public research

organisations in the field of “embedded systems”. A total budget of €2.7 billion over 7 years is planned; 60% of the required money (€1620 million) will come from the participating industry, while the European Commission will provide €410 million, coming from the budget of the FP7 ICT Theme. Industry will be represented by ARTEMISIA, an association created for this purpose, and will include amongst others Philips, ST Microelectronics, Thales, Nokia and Daimler. As ARTEMIS is based on a former EUREKA cluster functioning on a specific inter-governmental funding mode, certain EU Member States which are also members of the cluster will provide an additional €800 million in funding. This mixed funding mode leads to the direct implication of Member States in the governance of ARTEMIS. As a result, it is foreseen that only partners from the countries participating in ARTEMIS (or having established agreements), will be funded. Moreover, at least three partners from three different ARTEMIS member countries are needed for each project; the participation of partners from other countries would be decided on a case-by-case basis. The funding rates by the ARTEMIS Joint Undertaking are quite complex: they will be determined on a yearly base and will not exceed 16.7%. Additional rules for participation (e.g. IPR rules) are foreseen to be detailed in the different call texts.

- Innovative Medicines Initiative: IMI is based on a former Integrated Project under FP6 (InnoMed) and brings together most large European pharmaceutical companies (including the Swiss Roche and Novartis), which are represented in IMI by EFPIA, the European Federation of Pharmaceutical Industries and Associations. It has the aims of identifying and overcoming bottlenecks in the drug development process in order to make the European pharma industry more competitive. IMI will have a budget of €2 billion, which will be equally shared between the European Commission and EFPIA. With this money, consortia of industry, SMEs and public research organisations (universities, research institutes) will be funded. The Commission’s €1 billion, coming from the FP7 budget (from the Health theme), will only go to the public partners, while participating industry partners will fund their participation by themselves. Interestingly, there is no mention in the IMI proposal of a minimal number of participants, and the proposed IPR rules are similar to the ones of FP7. Funding rates are not stated, although it seems that IMI will be bound to State Aid rules, which would mean maximal funding rates of 75% for SMEs and public partners.

These two proposals were presented at the Competitiveness Council (Council of Ministers) meeting on 24-25 May. As the proposed Regulations underlying the establishment of the planned Joint Undertakings are based on Art. 171, they require adoption by the Council alone. They are planned to be discussed under the Portuguese Presidency in the second half of 2007, thus allowing the JTI to start in 2008.

The ARTEMIS proposal can be found under:

<http://register.consilium.europa.eu/pdf/en/07/st09/st09685.en07.pdf>

A Commission staff working background document on ARTEMIS can be found under:

<http://register.consilium.europa.eu/pdf/en/07/st09/st09685-ad01.en07.pdf>

The IMI proposal can be found under:

<http://register.consilium.europa.eu/pdf/en/07/st09/st09686.en07.pdf>

A Commission staff working background document on IMI can be found under:

<http://register.consilium.europa.eu/pdf/en/07/st09/st09686-ad01.en07.pdf>

Collaboration agreement for health research between the EU and China

Beginning of May, the European Commission and the Chinese Academy of Sciences have signed an agreement to start collaborative research projects in four areas of health research. These are the fields of infectious diseases; diabetes; traditional Chinese medicine including antimicrobial resistance; and protein science and proteomics. Projects will be jointly funded by the FP7 and the Chinese Government will follow the FP7 evaluation system. The agreement was initiated within the framework of the EU and China Science and Technology Year, which was launched in October 2006.

For more information, please visit:

http://ec.europa.eu/research/iscp/eu-china/index_en.html

EU Research Policy

Space policy – new funding scheme for Galileo?

The future funding of the European satellite navigation system, Galileo, was strongly questioned during the last weeks. The planned network of 30 Galileo satellites is intended to beam radio signals to receivers on the ground, enabling users to pinpoint exact locations. The project is currently managed by the Galileo Joint Undertaking, on behalf of the European Space Agency (ESA) and the European Commission.

Progress is falling behind schedule, letting the EU Member States and the European Commission fear that this delay could lead to a substantial overdraw of the budget and jeopardise the delivery of the project, which is due for completion in 2011-2012.

In a communication adopted on 16 May, the Commission recommends abandoning the public-private partnership for the construction and implementation of the system. The Commission proposes now to use public money for the implementation of the complete constellation (30 satellites) and a public-private partnership to take over only the system's operation and maintenance. The drafting of this new roadmap was prompted by the failure of the companies within the public-private partnership to agree on a single company structure for the running of the system. During negotiations, it became clear that the companies were reluctant to take on the design and market risks of the system. The European Commission's idea of funding Galileo from the unallocated margins of the current EU budget would make it possible to speed up the project, without having an impact on taxpayers, as no extra funds would be required. It however remains to be seen whether the European Commission will find the necessary funds within these budget margins.

The future of Galileo will be discussed at the Transport Council in Luxembourg on 7-8 June. However it is unlikely that an agreement will be reached by the Member States. At this point, no compromise is in sight before autumn.

Moreover, on 23 May, the EU 27 plus Switzerland and Norway, both of which are also part of the ESA, agreed on a resolution on European space policy, recognising the potential for dual use of space technologies for civilian and defence applications. This is the first time that space policy integrates a range of issues from transport to telecoms to security.

For more information about Galileo, please visit the following websites:

- the EC pages on Galileo: http://ec.europa.eu/dgs/energy_transport/galileo/index_en.htm
- the ESA pages on Galileo: <http://www.esa.int/esaNA/index.html>
- the Galileo Joint Undertaking website: <http://www.galileoju.com>

Towards global ethics standards in life sciences and biomedical research

On 14-15 May, the European Commission invited scientists, government officials as well as representatives of international organisations and pharmaceutical companies to discuss the current ethical standards in place for health research at a conference on "Ethics, Research and Globalisation" in Brussels. The aim of the conference was to provide input to future Commission policy in a variety of areas. The participants at the meeting agreed that the current standards of informed consent, for example in clinical trials, cannot be applied to developing countries, due to gaps in education and restricted access to medical care in these regions of the world. They see a role for the European Commission to support consensus-building efforts through forums for the different stakeholders as well as identifying and publicising best practices. These actions should be financed under the "Science in Society" programme of FP7.

This follows last month's announcement of the creation of an expert group of Chinese and European bioethicists in the frame of the EU-funded BIONET project. The expert committee, chaired by Christoph Rehmann-Suter, a bioethics professor at the University of Basel, will develop

a series of guidelines for the ethical governance of research in life sciences and biomedicine, based on a series of workshops and conferences to be held over the next three years.

Along similar lines, Research Commissioner Potocnik has recently called on the European Group on Ethics in Science and New Technologies (EGE) to provide an opinion on how to improve the current ethical procedure for human embryonic stem cell research, in an effort to adapt the implementation measures to the recent developments. The last opinion of the EGE on the subject dates back to 2000, which was used as a basis for the ethical guidelines for FP6. Research on human embryonic stem cells was a major issue debated by Member States during the adoption of FP7 last summer. The compromise finally reached, albeit practicable, remained unsatisfactory for not less than 5 Member States, which then rejected the Common Position of the Council of Ministers. Human embryonic stem cells therefore remain a sensitive issue, and it is in the interest of the European Commission to prevent any glitches by setting up stringent procedures.

More information on the BIONET ethics committee can be found under:

www.bionet-china.org

Publications

Survey compares Europe and United States in University-Industry collaboration

A survey conducted by ProTon Europe, a pan-European network of Technology Offices linked to Public Research Organisations and Universities states that European research collaboration between industry and universities is more intensive than in the United States. In 2005, a volume of €2,8 billion was spent in Europe for contract research, whereas in the United States it was €2,1 billion. On the other hand, the United States are more efficient in knowledge transfer, which is visible on the number of patents and licences produced. In this respect, higher cost of patents in Europe seems to be an obstacle.

The report concludes that Europe traditionally has a collaborative approach to research, whereas the United States have bigger companies which depend less on collaboration with other organisations.

The results of the survey can be found on:

<http://www.protoneurope.org/news/2007/Articles/FY2005survey>

Newsletter: EU research for the Environment

EU environmental research newly has its own showcase on the web. The quarterly newsletter «EU research for the Environment» informs its readers about programmes, environmental policies, events and relevant publications. Amongst others the new issue brings an article about the thematic sub-priority Global Change and Ecosystems (GCE) of FP6, which focuses on the mechanism and impacts of global environmental change as well as practical strategies and tools for sustainable development. Other articles are related to TECHNEAU, a project within FP6 that aims to develop strategies and technologies for safe drinking water, or DAMOCLES which deals with the understanding of climate change in the Arctic.

The newsletter “EU research for the Environment” can be found here:

http://ec.europa.eu/research/environment/newsanddoc/newsletter_en.htm

More action is needed to boost eco-innovation in Europe

The Environmental Technologies Action Plan (ETAP) is an initiative launched in 2004 to coordinate EU and Member States' efforts to stimulate eco-innovation. Within that framework a report was published by the European Commission on 3 May.

In the report the Commission lists some facts about eco-innovation in European Union. For example, 2,1% of the EU's GDP is due to the eco-innovation industry, which offers about 3,5 million full-time jobs, three-quarter of them in the sector of water and solid waste management. Strong growth was observed in the fields of wind power installation (20-25% in the last five years), photovoltaic energy (a growth of 25-35% is expected for the future), water management (expected to grow 6% annually over the next decade) and solid waste recycling (annual growth of 4,5% between 2000 and 2004). According to the Commissions report Europe holds already a strong position, namely one third of the market share worldwide, and in some areas of eco-technologies Europe has become a word leader.

However, the Commission sees a clear need to boost eco-innovation, particularly to combat climate change and to reduce air pollution. Eco-innovation is therefore seen as an important instrument to diminish energy consumption and to increase, by 20%, the part of renewable energy by 2020. Actions to achieve those ambitious goals are larger financial investments, the increase demand for eco-technologies, benchmarking of national schemes and identification of a number of 'good practices' within national strategies and finally the introduction of technology and performance targets.

Nowadays, eco-innovation is too often restricted to some market sectors. To achieve a better diffusion of eco-technologies the Commission proposes to stimulate the demand for such technologies by the promotion of environmentally sound public procurement in some profitable sectors. To implement this so called 'instant return' strategy, some sectors are identified in the report where eco-innovation is supposed to be efficient very quickly, such as construction, food and drink as well as private transport. Another priority is the establishment and use of synergies between research themes (e.g. within FP7), technology platforms, emerging lead markets and regulation in other sectors, such as energy, transport, agriculture and fisheries. Research policy is also seen as a particularly important area to boost eco-innovation. It is estimated that up to 30% of the FP7 budget will be targeted at environmental technologies.

For more information about ETAP please visit:

http://ec.europa.eu/environment/etap/index_en.htm

Expert Group "Knowledge for Growth" discusses EU's R&D deficit

When redefining the Lisbon Agenda in 2005 Research Commissioner Potocnik established an Expert Group of reputable economists to advise him on "Knowledge for Growth". The Expert Group operates as an independent advisory body and meets three times a year under the chairmanship of the Commissioner himself. Vice-chairman is Dominique Foray, Professor of Economics at Ecole Polytechnique Fédérale de Lausanne. So far the Expert Group has published two reports. The first one on Globalisation of Knowledge in April 2006, and the second one on the EU's R&D deficit and Innovation policy in April 2007.

The latter report examines critically the statement that Europe's innovation capacity is suffering because of a deficit in research and development (R&D) expenditure. Its main conclusion is that the concept of a deficit in R&D spending is too cursory and that further investigations need to be done in order to understand better what it really means. For example, it would not be appropriate to use the concept of the R&D expenditure deficit generally for the national economies of the EU member countries, but rather for the EU economy as a whole. The report underlines that with regard to the industrial structure, the EU's gap in R&D spending compared to the United States is much more significant in the production of IT goods and services than in other sectors. In this context, the report mentions also the assumption that the same constraints that restrain the development of the IT sector in Europe are responsible for the lack of success in other sectors,

such as biotechnology. From this point of view the weakness of EUs R&D expenditure is a symptom, rather than a cause, of a weakness in the EU's capacity to innovate. The real cause would be the unadjusted industrial structure of Europe, not the deficit of R&D spending. The Expert Group considers this reflection as being provocative and assumes that it is "based on tentative evidence and needs firmer analytical foundations to form the basis for policy recommendations".

Usually, the differences between Europe and the United States with regard to economic growth are explained by a stronger orientation of US financial markets to fund new sectors and new firms, by the larger flexibility of the US labour market and finally by the fragmentation of EU product markets as well as the more reserved attitude of European consumers to new products. Even if the Expert Group seems in general to agree with these market-based explanations, it does not miss to mention that some members of the group have another view. From some members' perspective, R&D expenditures have to be seen as a result of a systemic interaction among different elements in an innovation system. Deficits in R&D spending are consequently more systemic than market failures. Several interfaces within the system of innovation were regarded as particularly important by the Expert Group, such as the public-private interface, the interface between universities and industry, as well as between services and manufacturing. Nevertheless the report admits that the way these interactions work successfully remains rather obscure and that further work needs to be done.

Further information on the Expert Group can be found here:

http://ec.europa.eu/invest-in-research/monitoring/knowledge_en.htm

The report on EU's R&D deficit and Innovation policy can be downloaded here:

http://ec.europa.eu/invest-in-research/pdf/download_en/rdd_deficit_report0207.pdf

Intelligent Energy Europe (IEE) as third pillar of the Competitiveness and Innovation Programme (CIP)

The Competitiveness and Innovation Programme (CIP) has started at the beginning of 2007 and aims to support the quick implementation of R&D results into marketable products. It is the European Commission's instrument to transfer research to the market and can therefore be seen as an important supplementary measure to the Framework Programme.

One of the three pillars of the CIP is the Intelligent Energy Europe Programme (IEE), which is managed by the Intelligent Energy Executive Agency (IEEA). The IEEA will soon extend its tasks to become the Executive Agency for Competitiveness and Innovation (EACI) and will manage also the other parts of the CIP.

While research related to energy is done under the Energy Theme of FP7, the IEE focuses on the transformation and implementation on the market of the results of energy research. In this regard the communication and dissemination of the results is an important part of IEE. As a novelty, up to 75% of the costs of projects will be reimbursed, as opposed to the 50% previously paid. This means more competition because fewer projects will get funded. Lower success rate must therefore be expected and the selection criteria will be more stringent.

To submit a proposal at least three partners from three different Member States are requested.

The average number of partners will be around six to seven. As Switzerland is not associated to the CIP and participation of Third Countries to this programme is not foreseen so far, there will be at this stage no opportunity for Swiss partners to participate in projects of the IEE.

A first call for proposals has been published on 19 April. It will take up to 10 months to know whether a project has been successful or not. The IEE possesses an own list of evaluators which is not the same as in FP7. The Intelligent Energy Executive Agency will handle about 350 projects which will be managed by 20 project managers. A pre-proposal service is offered and a link to a partner search engine can be found on the website.

Further information on the IEE and the Intelligent Energy Executive Agency can be found here:

http://ec.europa.eu/energy/intelligent/ieea/index_en.htm

◆ Education

Meeting of the Education, Youth and Culture Council, 24-25 May 2007

On 24-25 May, the EU ministers of Education, Youth and Culture met in Brussels to decide on a set of key messages in the field of education and youth. They took a series of conclusions aimed at establishing a coherent framework of indicators and benchmarks for monitoring progress accomplished in the Education and Training 2010 Work Programme, the educational chapter of the Lisbon Strategy.

In addition, the ministers adopted a resolution on equal opportunity for young people. Social inclusion is one of the priorities of the European “Youth in Action” programme and the European Youth Pact, adopted during the 2005 Spring Summit within the framework of the Lisbon Strategy.

The council also drafted conclusions concerning the future of European cooperation in the area of youth policy. A list of areas where cooperation could be strengthened has been drafted, for example:

- Improved social inclusion of young people, facilitating their transition to autonomy;
- Improved condition of life in multicultural societies by promoting the intercultural exchange of young people;
- Assistance to help them reconcile professional and private life.

The Council of Ministers also hopes to see inter-sector and cross-border cooperation strengthened, especially concerning the exchange of best practice.

The decision on the indicators and benchmarks could be found under:

http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/educ/94290.pdf

The resolution on the equal opportunity for young people under:

http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/educ/94319.pdf

The conclusions on the future of European cooperation in the area of youth policy under:

http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/educ/94312.pdf

Bologna Ministerial Conference in London

On 17-18 May, the Education Ministers attended the Bologna Ministerial Conference in London to discuss progress made in the Bologna process. Developments over the last two years are leading closer to the realisation of the European Higher Education Area (EHEA), even if some goals have not been reached yet. As a result, no new measures in the Bologna process have been proposed, but the ministers reaffirmed their commitment to increase the compatibility and comparability of individual higher education systems whilst at the same time respecting their diversity.

Until the next meeting in Leuven in 2009, the focus will therefore be set on completing agreed Action Lines, including the ongoing priorities of the three-cycle degree system, quality assurance, as well as recognition of degrees and study periods. Priority will also be given amongst others to areas like mobility of students and staff, social dimension and employability.

For more information about the Bologna Conference, please visit the Bologna Secretariat website:

<http://www.dfes.gov.uk/bologna/index.cfm?fuseaction=content.view&CategoryID=23>

Studies on how Europe adopted European Higher Education reforms

On the eve of the Bologna Ministerial Conference in London (see article above), a number of publications were released reporting on the progress made within the Bologna process. Amongst others, the European University Association (EUA) and the Commission’s Information Network on Education, Eurydice, both published a study giving insight into how Europe has adopted the higher education reforms outlined in the Bologna process.

EUA’s “Trends V” report shows the progress made by European universities in implementing the Bologna reforms, and outlines the main challenges ahead. Three key challenges for the future can be highlighted:

- Strengthening the relationship between governments, higher education institutions and other societal stakeholders.

- Institutions need to develop their capacity to respond strategically to the Life Long Learning agenda.
- Institutions must begin to take into account the implications of the existence of the European Higher Education Area after 2010.

Eurydice's report, entitled "Focus on the Structure of Higher Education in Europe: National Trend in the Bologna Process", takes stock of instruments already implemented within the framework of the Bologna process:

- Adoption of the three-cycle structure (Bachelor/Master/Doctorate);
- Introduction of a European Credit Transfer and Accumulation System (ECTS);
- Provision of the Diploma Supplement;
- Recognition of joint degrees;
- Introduction of national qualifications frameworks;
- Development of quality assurance in higher education.

Both these reports were presented and discussed at the Bologna Ministerial Conference.

EUA's study can be downloaded here:

http://www.eua.be/fileadmin/user_upload/files/Publications/Final_Trends_Report_May_10.pdf

Eurydice's report can be consulted here:

http://www.eurydice.org/ressources/eurydice/pdf/0_integral/086EN.pdf .

Official launch of the Life Long Learning Programme

On 7 May, the EU's new €7 billion Life Long Learning Programme (LLL) was launched in Berlin. The aim of the seven year education programme is to create a European Education Area to meet the Lisbon Goal of becoming the most competitive, knowledge-based economy of the world by 2010. The LLL Framework Programme is built on four thematic sub-programmes (Comenius, Erasmus, Leonardo da Vinci and Grundtvig) and two supporting cross-cutting programmes. Grants and subsidies will be awarded to individuals and to projects under each of these programmes, with the goal of supporting trans-national mobility of individuals, promoting bilateral and multilateral partnerships, or improving quality in education and training institutions and systems (see also SwissCore Synopsis 2007/1).

For more information about the LLL launch, see under:

<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/608&format=HTML&aged=0&language=EN&guiLanguage=en>

◆ SwissCore Küche

New trainee at SwissCore: Véronique Sordet

Véronique Sordet joined the SwissCore team on 1 June 2007 for a six-month internship. She holds a bachelor degree with a thesis in institutional communication sciences from the University of Lugano. Afterwards she studied international management at the University of Sherbrooke (Québec, Canada), including a semester in France at the ESCM School of Business and Management Tours-Poitiers. She is currently concluding her master with this internship. At Swisscore, Véronique will learn about the EU research, innovation and education landscape while also providing general office management support.

