SwissCore Synopsis Research

June-August 2006

2006 / 3

FP7 Special Edition

This edition of the SwissCore Synopsis Research as well as previous editions are available on our website.

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Political process: towards a decision on FP7

After a slow start, the decision-making process towards the adoption of 7th Framework programme (FP7) is now on good track. Indeed, at the beginning of this year, the FP7 adoption process had been blocked for a long time by the European institutions' inability to agree on the Financial Perspectives 2007-2013, which define the maximal budgetary ceilings for all the expenditures of the EU. After the finalisation of the debate on the budget in April 2006, the European Commission tabled the revised budget figures for FP7 on 17 May, allowing the adoption procedure to move on.

Based on these figures, the European institutions were able to hold concrete discussions on the FP7 proposal. The report of Jerzy Buzek on the FP7 proposal was adopted by the European Parliament's Committee for Industry, Research and Energy (ITRE) on 30 May and was then agreed upon in the Parliament's plenary on 15 June. In this report, the European Parliament requested close to 400 modifications. Following this first reading adoption by the European Parliament, the FP7 proposal was then formally passed on to the Council of Ministers, which had already been discussing its content informally in order to rapidly come to a political agreement.

In the meantime, the European Commission worked on incorporating the main amendments made by the Parliament into a revised proposal for FP7. Finally, the Commission published its revised FP7 proposal on 28 June. It was this revised proposal that the Ministers discussed at an extraordinary Competitiveness Council meeting on 24 July, which had been called by the new Finnish EU Presidency. There, Ministers managed to reach a political agreement on FP7 before the summer break, speeding up the process considerably, as the next regular Competitiveness Council meeting was planned for 25 September. The decision-making process is thus advancing well.

As far as the content of the discussions is concerned, both Parliament and Council agreed on the general structure and on the main lines of FP7 as proposed by the Commission, but a few points were intensely debated and some differences between the three institutions remain to be resolved:

- Budget: the European Parliament as well as the Council agree on the overall budget, but each proposes a series of slight modifications to the budgetary repartitions within the programme (see article below).
- Ethical guidelines: The Ministers were able to find a compromise on the issue of embryonic stem cells which suited the largest opposing countries, allowing the necessary qualified majority to be reached. The Parliament has adopted a position which is in essence quite similar (see article below).
- Support for SMEs: The MEPs and the Council both want to set a specific target of 15% for SME participation in the Cooperation programme. The Commission would like this percentage to remain indicative rather than binding.
- In both the Parliament and the Council's view, the thematic priority Space & Security should be divided into two separate ones, bringing the number of themes to a total of 10. Additionaly, MEPs also adopted an amendment asking for the introduction of an 11th priority concerning fishing and the sustainable exploitation of the oceans.
- The legal status of the ERC remains a debated issue: Both Parliament and the Council would like the ERC to be established as a permanent, legally independent structure. What this really means in practice remains to be finalised; the final legal form of the ERC will only be decided after a first review of the programme (see below).
- Review of the Framework Programme: The Parliament wants two interim evaluations of the programme (2009 and 2011) rather than just one in 2010, as planned by the Commission and the Council.

With the Parliament's first reading concluded and the Council's imminent adoption of its common position, the three institutions (Parliament, Council and Commission) will now try to resolve their differences in a second reading that everyone hopes will be fast and without major difficulties.

The Parliament has set the date for its final adoption of FP7 in second reading to 29 November, whereas the Council should give its final word on the proposal shortly after - a Competitiveness Council meeting is planned for 4-5 December.

The advancement of the other legislative proposals necessary for the implementation of FP7 remains less clear, notably for the Rules for Participation, whose adoption process has been somewhat delayed (see article below). In addition, the Council still awaits the Parliament's opinion on certain Specific Programmes, before being able to adopt these as foreseen by the consultation procedure. A compromise on these other legal documents will have to be found during autumn, at the same time as the second reading on the FP7 proposal.

In parallel to the political process leading to the adoption of FP7, the Commission has been working steadily to prepare the implementation of the Framework Programme in order to allow the first calls for proposals to be issued as soon as the legal documents of the programme are adopted. The work programmes of the different research themes for 2007 are currently being drafted and will be presented to the respective programme committees in October. In addition, the model contract, which will need to be signed between the recipients and the Commission when a project is accepted, as well as the project submission forms and the electronic submission system are currently being finalised. Once these implementing procedures and tools are set up, the start of the 7th Framework Programme should only depend on the pace of the political adoption process.

The Competitiveness Council (Council of Ministers) political agreement on FP7 can be found under: http://register.consilium.europa.eu/pdf/en/06/st11/st11978.en06.pdf

EURATOM: agreement finally reached

The EURATOM Framework Programme, the smaller, but much older of the two framework programmes of FP7, is based on a different treaty (the EURATOM Treaty of 1957) and therefore follows a parallel, but different adoption procedure:

- The Framework Programme is adopted in co-decision between Parliament and Council. The adoption of a common position in Council requires a qualified majority (weighted majority of the Member States).
- The EURATOM Programme is adopted by unanimity of the Council alone.

Due to many interconnections, the two programmes are generally adopted together in Council, as are the proposals for their respective Specific Programmes and Rules for Participation.

Surprisingly, the EURATOM Programme came under political pressure during the Austrian EU Presidency, which ended in June. Indeed, at the Competitiveness Council (Council of Ministers) meeting of 29-30 May, following a media campaign in Austria against atomic energy, the Austrian delegation opposed the adoption of the EURATOM Programme, a rather unusual move from a country in charge of the Presidency. The point of contention was the contribution of the Joint Research Centre (JRC) to the "Generation IV International Forum R&D initiative", which has the goal to develop a new type of fission reactor. This so-called "Generation IV reactor" should be safer and produce only very little radioactive waste. For some circles in the nuclear-free country Austria, this involvement amounted to a support of nuclear power plants.

This point was finally settled at the extraordinary Competitiveness Council meeting of 24 July, after the Presidency had passed on to the much less nuclear-averse Finns. The Austrian delegation was offered a compromise which would appease the political storm in their country. As stated in the political agreement, the involvement of the JRC will be restricted to the "safety aspects of the Generation IV initiative". With this point of contention resolved, the EURATOM Programme was finally unanimously adopted.

Based on the Council's decision, the budget of the EURATOM Programme will be divided as follows:

Euratom total (2007-2011)	**2751**
Fusion (ITER)	1947
Fission and radiation protection	287
JRC (nuclear)	517

- The largest part of the budget will go to activities in the domain of nuclear fusion, i.e. the construction and operation of the experimental fusion reactor ITER in Caradache, France. The €12 billion ITER project is supported by seven partners (the EU and Associated States plus China, India, Japan, Russia, South Korea and the US), which initialled the necessary agreements on 26 May 2006. The official signing of the agreements is scheduled for 29 November of this year, and work will then start immediately after the completion of this official act.
- The nuclear fission part of the budget will support:
  - management of radioactive waste;
  - continued safe operation of existing reactor systems;
  - radiation protection.

  Infrastructures as well as the "further development of scientific competence and human capacity" (e.g. fellowships) in this field will also be supported.

Hence, the EURATOM Programme is in place, but the Specific Programmes and Rules for Participation pertaining to EURATOM remain to be adopted by Council before the programme's start in January 2007. These two documents are expected to be discussed at the same time as their non-nuclear counterparts and adopted early December the latest.

The Council's decision on the EURATOM programme can be found under:
http://register.consilium.europa.eu/pdf/en/06/st11/st11979.en06.pdf

Ethics in FP7: narrow compromise on stem cells

Political discussions on topics such as ethics, and stem cell research in particular are difficult to conduct and their outcomes are often unpredictable. When dealt with at the European level, between countries with different legal frameworks, different cultural and religious backgrounds, they have proved that they can easily become a "procedural nightmare". For this reason, when preparing FP7, the European Commission had been very careful to propose to keep the ethical rules that currently apply in FP6 and that were agreed to by the European Parliament and Council of Ministers five years ago.

These rules, formulated in the FP6 text, explicitly forbid funding the following three fields of research under FP6:

1. *"research activity aiming at human cloning for reproductive purposes,*
2. *research activity intended to modify the genetic heritage of human beings which could make such changes heritable,*
3. *research activities intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer."*

Furthermore the European Commission had developed a number of internal rules for stem cell research which can be summarised as follows:

a) No research activity involving human embryonic stem cells can be funded in a country where such research is forbidden. The researchers must also seek national approval for their projects and ensure they respect all national rules and procedures;

b) In its calls for proposals, the European Commission never solicits projects to use human embryonic stem cells. This decision is left to the scientists only, according to their research objectives;

c) Each project involving the use of human embryonic stem cells must pass both a scientific evaluation and an ethical review by a Regulatory Committee, which has the power to refuse its funding. Ethical reviews might also be carried out during the lifetime of the project.

Whereas the European Parliament, after a hefty debate, had agreed to follow the European Commission along the FP6 lines, a number of Member States were threatening to block the FP7 decision in the Council of Ministers if the rules were not made stricter. In order to guarantee that FP7 starts in time, it was therefore imperative that EU research ministers quickly came to an agreement on this point. Ministers thus met for the first time under Finnish Presidency on 24 July against that background and came to the following compromise:

The European Commission will prepare an official statement, which will be annexed to the FP7 Decision (but will not be included in the FP7 text itself), to explicitly put in writing the current practices outlined above and add the following new rule, which was formulated by Germany and supported by Italy: *"The European Commission will continue with the current practice and not submit to the Regulatory Committee proposals for project which include research activities that destroy human embryos, including for the procurement of stem cells*". This formulation thus explicitly excludes the funding through EU projects of the procurement of stem cells, a practice the European Commission was already following under FP6. Other countries then added a second sentence to make sure this amendment would not prevent subsequent research activities to take place: "*The exclusion of funding of this step of research will not exclude Community funding for subsequent steps involving human embryonic stem cells*."

In spite of this agreement, the debate has shown that stem cell research remains a difficult topic in Europe as five countries (Poland, Austria, Lithuania, Slovakia und Malta) voted against the compromise outlined above. However, given that this compromise actually confirms current practices and does not change the body of the FP7 text as approved by the European Parliament in the first reading, the chances are high that stem cell research will not stand in the way of the swift adoption of FP7.

The official statement concerning embryonic stem cells, amended by the German proposal, can be found annexed to the Competitiveness Council (Council of Ministers) political agreement on FP7 (p. 88-90):
http://register.consilium.europa.eu/pdf/en/06/st11/st11978.en06.pdf

Budget repartition: progress towards a compromise
The budget allocations of the different European programmes have been intensely debated at the beginning of this year: the rather disappointing compromise by the Heads of State and Government on the Financial Perspectives 2007-2013 in December 2005 had been refused by the European Parliament, and a series of "trialogue" meetings between the Parliament, the Council of Ministers and the European Commission were necessary to come to the Inter-Institutional Agreement settled on 4 April.

These Financial Perspectives, which set the maximum budgetary frame for the years 2007-2013, were increased by €2 billion to a total of €864.4 under the Parliament's pressure; an additional €2 billion were redistributed within the budget. The Inter-Institutional Agreement, approved by both Parliament and Council, settles the budget of FP7 to €54.6 billion, of which €50524 million will go to the non-nuclear activities of FP7 and the rest to the EURATOM programme. This allocation leaves the FP7 budget with a reduction of approximately 30%, compared to the Commission's original proposal.

Still up for debate between Parliament, Council and Commission is the budget repartition within the FP7 sub-programmes. The Commission published its revised budget figures on 28 June 2006, based on the original proposal of April 2005. On 15 June, the European Parliament

adopted in first reading its own budgetary repartition included in the amended FP7 proposal, and finally, on 24 July, the Council of Ministers came to a political agreement, which includes the Council's budgetary preferences (see table below).

	Original proposal European Commission *06.04.2005*	Revised proposal European Commission *28.06.2006*	European Parliament (difference. to Com. proposal) *15.06.2006*	Council of Ministers (difference. to Com. proposal) *25.07.2006*
FP7 TOTAL	**73215**	**50521**	**50524**	**50521**
Cooperation	**44735**	**32292**	**32492 (+200)**	**32365 (+73)**
Health	8373	5984	6134 (+150)	6050 (+66)
Food, Agriculture & Biotechnology	2472	1935	1935	1935
Information & Communication Technologies (ICT)	12756	9110	9020 (-90)	9110
Nano-sciences, nano-technologies, materials and new production technologies	4865	3467	3467	3500 (+33)
Energy	2951	2265	2385 (+120)	2300 (+35)
Environment (including climate change)	2552	1886	1886	1900 (+14)
Transport (including aeronautics)	5981	4180	4150 (-30)	4180
Socio-economic sciences and the humanities	798	607	657 (+50)	610 (+3)
Space	3987	2858	1429	1430
Security			1429	1350 (-78 for S&S)
Ideas (ERC)	**11942**	**7460**	**7560 (+100)**	**7460**
People (Marie Curie)	**7178**	**4727**	**4777 (+50)**	**4728 (+1)**
Capacities	**7536**	**4291**	**3944 (-347)**	**4217 (-74)**
Research infrastructures	3987	2008	1708 (-300)	1850 (-158)
Research for SMEs	1914	1266	1328 (+100)	1336 (+80)
Knowledge regions	160	126	126	126
Research potential	558	350	320 (-30)	370 (+20)
Science in society	558	359	329 (-30)	280 (-99)
Coherent development of research policies	-	-	-	70
Activities of international cooperation	359	182	133 (-49)	185 (+3)
JRC (non-nuclear)	**1824**	**1751**	**1751**	**1751**

When the numbers between the three institutions are compared, a few points can be noted:

- Both the Parliament and the Council want to allocate more funds to the Cooperation programme, in their eyes the core part of the Framework Programme;
- Both want a separate budget for Space and Security research;
- Besides individual preferences for certain topics, both Parliament and Council want more funding for the themes of Health, Energy and Socio-Economic Sciences than foreseen by the Commission's proposal. An amendment adopted by Parliament also requests that 2/3 of the budget for the Energy priority should go to research in renewable energy, energy conservation and energy efficiency;

- The Ideas (ERC) and People (Marie Curie) programmes enjoy strong support in Parliament, which wants to increase their budget accordingly;
- The budget for the Capacities programme should be reduced in both the Parliament and Council's views. This reduction should affect Infrastructures and Science in Society the most, whereas research for SMEs would even benefit from an increase. This reflects both institutions' interest in supporting SMEs;
- The Council furthermore decided to introduce a new budgetary item, "support for the coherent development of research policies", for activities based on the Open Method of Coordination, a series of benchmarking and exchange of good practice activities overseen by Council.

These rather small budget disparities will have to be settled in the course of the fall, in order to allow the second reading on the FP7 proposal to proceed swiftly.

Rules for Participation: important financial and legal issues still open

Whereas the adoption process of the FP7 proposal has recently enjoyed a steady pace, the related process concerning the second legal document of the FP7 package to be adopted by co-decision between Parliament and Council, the Rules for Participation, has suffered some delays.

These "Rules for the participation of undertakings, research centres and universities in actions under the Seventh Framework Programme and for the dissemination of research results" set the legal obligations of the participants, define the financial regulations and the maximal reimbursement rates of participants, and regulate issues related to intellectual property. While seemingly rather dull, these rules will however have a strong practical impact on FP7 participants, as they will notably determine what kind of activities are supported at which rate of reimbursement, and what kind of costs can be charged to the project.

The Commission's proposal for the Rules of Participation for FP7 had been published on 23 December 2005. The European Parliament then started its debate on the Rules the following spring. It had been planned that the report of Philippe Busquin, the former Commissioner for Research, would be adopted by the Committee for Industry, Research and Energy (ITRE) on 13 July 2006. However, the Committee only voted on a first series of amendments and postponed the final vote to a later meeting after the summer break. This delay should now allow the European Parliament to consider and include in its own text the inputs made by the Council of Ministers in June. If they are successful in incorporating all these points and come to a compromise with the Council, the Rules for Participation could be adopted in one single reading and be finalised by December 2006.

The major change in the proposed FP7 rules compared to FP6 is the disappearance of the different "cost models", especially the Additional Cost model, which was very popular amongst universities. The Additional Cost (AC) model allowed universities which could not identify the precise costs of the project to charge to 100% the costs specifically incurred for the project, i.e. in addition to their regular costs. This model implied that the cost-sharing between the participants and the European Commission, which is the basis of all EU funding, would come from the regular costs of running the institution (e.g. salaries of permanent staff) that were not covered by the reimbursement under the AC model. In FP7, all the "eligible costs" of a project can be charged to the project, including personnel. However, the reimbursement rate will be 75% for universities and SMEs, and 50% for industry participants. This implies that academic institutions will have to introduce precise accounting systems to identify all the costs incurred by the project. However, the option of using a flat-rate or a best approximation for the indirect costs ("overhead"), in the case these cannot be identified, is also planned.(see also Synopsis Research 2006/2).

The level of this flat-rate for indirect costs is currently being discussed between Council, Parliament and Commission. Another debated issue is the reimbursement rate for third country participants (especially from third world countries). MEP Busquin proposed a series of amendments to increase the reimbursement rate of universities to 80% and to allow the hiring of

researchers to be charged at 100% to the project. These points, as well as the other differences will need to be negotiated between Council and Parliament before the autumn to allow the planned single reading to proceed without major delay.

A draft of the report of the European Parliament's ITRE committee on the Rules for Participation, and the list of amendments can be found under:
http://www.europarl.europa.eu/meetdocs/2004_2009/documents/pr/610/610149/610149en.pdf
http://www.europarl.europa.eu/meetdocs/2004_2009/documents/am/616/616244/616244en.pdf
http://www.europarl.europa.eu/meetdocs/2004_2009/documents/am/616/616556/616556en.pdf
http://www.europarl.europa.eu/meetdocs/2004_2009/documents/am/616/616876/616876en.pdf

Basic research: ERC strategy and operative details
The European Research Council (ERC) has made considerable progress since the first formal proposal for an ERC was made by the Commission in April 2005, as the sub-programme "Ideas" within the FP7 proposal. In July of the same year, based on recommendation of the "nominations committee" it had set up, the Commission appointed the 22 eminent scientists of the Scientific Council of the ERC, with the mission of defining the scientific agenda of the ERC as well as its organisation. At their first meeting in October 2005, the Scientific Council chose Fotis Kafatos as Chairman, with Helga Nowotny and Daniel Estève as Vice-Chairs. The Scientific Council then swiftly proceeded with its mandate to define the functioning and scientific organisation of the ERC.

In terms of structure of the ERC, the following elements are already known:
- The ERC should be first established as an Executive Agency, with the possibility of changing the legal structure during the course of the Framework Programme. This point is still being intensely discussed in Council and Parliament (see above). The European Commission is currently setting up an external "Dedicated Implementation Structure" (DIS) which will fulfil the administrative tasks of the ERC.
- A Secretary General will act as an intermediary between the Scientific Council and the Dedicated Implementing Structure. The recruitment is currently under way.
- An ERC Board composed of the Chair and the Vice-Chairs of the Scientific Council, the Secretary General and the Director of the DIS, will manage the activities of the ERC.

The Scientific Council has also defined a scientific strategy, based on the following principles:
- All fields of research should be covered, and interdisciplinarity will be a key target
- Funding should go to individual, independent researchers (according to the motto: "trust the individual") and should be significant.
- There should be specific support for young scientists ("trust the young")
- Excellence as the sole criterion for evaluation ("keep it simple")

Based on this general strategy, two major funding streams are currently being established:
- ERC Starting Grant: This funding stream will be started in 2007, with a budget of approx. €300 million per year. This will allow for about 200 grants for up to 5 years to be awarded each year. Those grants will be reserved to people with no more than 10 years experience after their PhD and in the process of establishing their own independent research group, allowing about 1400 new investigators to establish themselves in Europe over the seven year course of the Framework Programme. This critical mass of young scientists could indeed make a difference at the European level, as they will also be doted with the funds necessary to perform high quality research.
- ERC Advanced Grant: These grants will be introduced "on-stream" from 2008 onwards. They will support individual teams led by experienced investigators at all stages of their career. The implementation guidelines for these grants are still being worked out and will be the scope of a future "strategy note" of the Scientific Council.

Concerning the scientific evaluation of the proposals for the ERC Starting Grants, the Scientific Council has decided to rely on a structure of 20 high-level review panels. There will be 10-12 people in each panel, which will be chaired by an eminent member of the specific field. The panels' work will be supported by external referees, which will be asked to submit written reports to the panels. The referees as well as the panel members will have the task to evaluate both the project and the candidate's potential. The two major challenges these panels will have to face are:

- Interdisciplinarity: By keeping the number of panels to 20, the Scientific Council hopes to promote interdisciplinarity. There will also be a certain percentage (probably 20-25%) of the funds which will specifically go to projects that bridge panels. Furthermore, the funding allocation will be independent of the panel structure. For the list of panels, the thematic priorities of the Cooperation part of FP7 have not been retained.
- Oversubscription: The Scientific Council will have to clearly communicate that the selection will be though and will encourage potential candidates to perform a self-evaluation before deciding to apply. Furthermore, the evaluation will be conducted as a two-stage procedure, with the initial submission of a short proposal, followed by a full proposal upon invitation.
- An additional challenge will be to ensure the consistency of reviewing between the 20 panels. To address this issue, the Scientific Council relies on the evaluation track record the panel chairs will need to have, as well as on the presence of members of the Scientific Council during panel sessions to overview the process. With these safeguards, the Scientific Council is confident that the applicants will get a fair review of their proposal.

With the implementation guidelines ready and the panels soon in place, the ERC should be ready to launch its first calls at the end of 2006. Despite ongoing political discussions about its final legal form, the ERC should become operational as soon as FP7 enters into effect. Indeed, both Parliament and Council have agreed to report the decision about the ERC's legal structure until after the first review of the programme, which will be performed in 2008 the earliest.

The Scientific Council's strategy note on the ERC peer-review panel structure can be found under: http://erc.europa.eu/pdf/erc-scientific-council_strategy_note_peerreview_panels_en.pdf

Technology platforms: relevance for FP7

With the establishment of more than 30 European Technology Platforms (ETP) since the emergence of the first ones in 2003, the role of these platforms has been gradually refined and their importance has grown substantially. Technology Platforms are exchange forums set up under the leadership of industry and with the support of the European Commission, to gather stakeholders in specific fields to define a strategic research agenda for their domain. The aim of these platforms is to contribute to an increase of the European industry's competitiveness by fostering collaboration on R&D efforts in different sectors. The ETPs undergo three stages of development:

1. Gathering of stakeholders and definition of a vision for the future;
2. Definition of a Strategic Research Agenda setting out the research priorities for their specific field or technology;
3. Implementation of the Strategic Research Agenda through private R&D, national or regional programmes and EU programmes, especially collaborative research projects and Joint Technology Initiatives under FP7.

Since one of the Commission's main interests in supporting the Technology Platforms is to increase industry's participation in the Framework Programmes, the Strategic Research Agendas will be taken into consideration for the drafting of the FP7 annual work programmes. These industry forums therefore play a non-negligible role in shaping the implementation of the Framework Programme. As a result, some of the industry advisory councils that had been established in the past in some sectors (transport, aeronautics) to advise the Commission on the priorities for research have become Technology Platforms, and the number of Technology Platforms keeps increasing steadily, as four new ones have been established since April 2006.

In a few selected sectors, Joint Technology Initiatives (JTI) will be set up to implement the Strategic Research Agendas. They will be established as public-private partnerships and will most likely include a substantial financial contribution from the EU, based on the Article 171 of the Treaty, which allows the Commission to set up joint undertakings (e.g. Galileo). The proposals for each JTI will require the approval of the Council, with the Parliament being consulted. Due to the far-reaching involvement of the Community, the Technology Platforms wanting to implement their Strategic Research Agenda through a JTI will be carefully examined by the Commission and the Council.

According to the Commission's second status report published in May 2006, five of the 29 reviewed Technology Platforms are likely to launch a JTI, namely:

- The European Hydrogen and Fuel Cell Technology Platform (HFP)
- ENIAC – European Nanoelectronics Initiative Advisory Council
- ARTEMIS (Embedded Systems)
- Innovative Medicines for Europe (IMI)
- ACARE – Advisory Council for Aeronautics Research in Europe (CleanSky JTI)

Two more Technology Platforms are considering the possibility of a JTI, but do not seem ready at this stage:

- ESTEP – The European Steel Technology Platform
- The European Construction Technology Platform (ECTP)

Another important issue in the choice of a JTI is that the Commission funding for the joint undertaking will come from the budget of the relevant theme of the Cooperation programme. As a result, only a very small number of JTIs will be financed in each topic. Furthermore, certain topics are more suited for industrial application and have therefore more potential JTIs (e.g. ICT with ARTEMIS and ENIAC). The partners involved in a JTI will need to establish implementation structures to distribute the public and private money according to the usual standards, by issuing competitive calls for proposal and setting up fair evaluation procedures. These calls should be open to all interested researchers working in the field covered by the JTI.

The Commission's second status report: "European Technology Platforms – Moving to implementation" can be found under:
ftp://ftp.cordis.europa.eu/pub/technology-platforms/docs/ki7305429ecd.pdf

Coordination of national research programmes: how FP7 should help realise ERA
In the 7th Framework Programme, three types of schemes to support the coordination of national research programmes are foreseen:

- The ERA-NET scheme, which was introduced in FP6, supports the networking between research funding agencies and the coordination of research programmes carried out at national or regional level. The goal of this instrument is not just the mere coordination between national programmes, but ultimately the implementation of joint calls and joint evaluation procedures. However, funding by the Commission is limited to networking and common management activities.

- The new ERA-NET PLUS represents a further development of the ERA-NET scheme. Under this scheme, when the coordination of the national research programmes foresees joint calls and the funding of projects from a single common source ("common pot"), the Commission will contribute by adding an extra amount of probably 20-30% to the common funding source. In the Commission's view, this incentive should entice different national research programmes to go further in the integration of their research funding activities in a given field.

- The most advanced stage of collaboration and integration between national programmes is represented by the Article 169 initiatives, which allow for the Community's participation in jointly implemented national research programmes. This scheme, already introduced under FP6, was so far only used once, in the case of the EDCTP, the European and Developing Countries Clinical Trials Partnership. Based on experiences with EDCTP and in view of the complex procedures required for this initiative, the Commission has revised and refined a series of criteria that need to be fulfilled to propose an initiative under Art. 169:
    - scientific relevance of the project, also for the Framework Programme;
    - relevance for Europe;
    - existence of a true integration process between the national funding agencies, including:
        - scientific integration;
        - financial integration ("common pot");
        - integration of the management (administrative and legal issues);
    - critical mass, both financially and structurally;
    - involvement of the concerned Member States at an early stage;
    - relevance in relation to the instrument (should be more than an ERA-NET).

  The Commission is currently examining four projects that could be proposed as Art. 169 initiatives:
    - Baltic Sea Research (BONUS)
    - Ambient Assisted Living
    - Metrology
    - Research-Performing SMEs

  Each Art. 169 initiative proposed by the Commission has to be individually adopted by co-decision of the European Parliament and the Council of Ministers. Due to budget constraints, the Commission will most likely only propose one such initiative in 2007, with the other ones being brought in on-stream.
  In addition, a new Art. 169 initiative in the field of cancer research might be started. A Specific Support Action to examine this possibility is currently under way. It will however also depend on the fate of EDCTP, which will be decided following its impending review.

Under FP7, all three schemes will coexist and be implemented and managed through the different themes in the Cooperation part. This is unlike in FP6, where ERA-NET and Art. 169 schemes enjoyed an own budget line and were generally considered "bottom-up" instruments. This might affect the thematic openness of these schemes, since the proposed projects will most likely be handled by the different thematic Directorates. On the other hand, the advantage is that there will thematic calls for proposal for ERA-NETs, making this instrument more predictable. However, the possibility for "bottom-up" ERA-NETs will remain and will most likely be implemented through "open calls". Indeed, the Commission ensured in its proposal that sufficient flexibility will allow for schemes falling outside the planned themes to be funded, provided sufficient European added value is demonstrated.

Marie Curie Actions: co-financing as a new way to support researchers' careers?
The number of Marie Curie Actions, which are gathered in the People programme in FP7, has been reduced in comparison to FP6. Indeed, certain actions will covered by other programmes like Ideas (ERC) or Capacities, and a reorganisation was also made necessary by changes in the overall Marie Curie strategy. These mainly include an increased focus on research training networks for junior scientists and the introduction of a co-financing mechanism for individual fellowships schemes existing at the national level. The programme will be organised and implemented along the following four lines:

- Training of junior scientists ("Initial training of researchers"): this action will support international networks for early stage training (e.g. doctoral schools). Depending on the topic, they should be set up with the involvement of industry and provide a Joint Training Programme including training through research but also complementary competences

modules. The action will cover the allowances for "early-stage" researchers and for "chair" positions, contributions to training and networking costs as well as conferences or courses also open to researchers from outside the network.

- Individual fellowships ("Life-long training and career development"): this action will be operated in two parallel modes:
  - Selection/funding of individual fellows through EC calls. This mode will be run the same way as the Intra-European Fellowships under FP6.
  - Co-funding of mobility programmes of national/international research organisations. By co-funding programmes at the national level with similar objectives, the Commission hopes to obtain a greater structural impact on the career of researchers across Europe. The programmes will be selected through open calls without national quota and will be operated in full autonomy by the co-funded body. The selection criteria will be:
    - trans-national mobility;
    - peer-review process;
    - career development measures;
    - working conditions of fellows.

  The Commission's original proposal to entirely replace the individual fellowships by the co-funding mechanism was met with a lot of scepticism by most countries. The co-funding mode will therefore be introduced on a "controlled scale" to obtain the necessary experience. It will benefit from an increasing annual budget, starting at €50 million in 2007 to possibly up to €300 million in 2013. Assessments during the course of FP7 will determine the future of both implementation models.

- Industry-academia staff exchange ("Industry-academia partnerships and pathways"): This action will be embedded in a longer-term cooperation between both sectors, providing support for two-way staff secondment and recruitment of experienced researchers from outside the partnership. Networking activities (conferences, workshops) will be financed as well.

- International fellowships ("International dimension"): This action will comprise both Outgoing and Incoming International fellowships of FP6. The new outgoing fellowships will include a mandatory return. The mandatory period abroad for return and reintegration grants will be lowered from 5 to 3 years. A second part of this action will focus on the international cooperation with third countries.

These four action lines will be supplemented by specific actions for policy development. The FP6 Excellence Grants will be replaced by the ERC Starting Grants, and other Excellence promotion actions have been incorporated in the other schemes. However, the Marie Curie Excellence Awards will be continued under FP7.

With this rationalisation, complemented with planned measures to reduce the applicants' administrative burden (lighter reporting and accounting, wider use of flat rates and scale of unit costs), the Commission hopes that its popular Marie Curie programme will have even more impact on researcher's careers. The challenge posed by the heavy oversubscription of the programme nevertheless remains present and the Commission is busy drafting the work programme for these actions in a way to mitigate this problem.

Types of projects: the revised funding schemes of FP7

One general criticism that could be made about the EU research programmes is the lack of continuity between different Framework Programmes. When working on FP7, the Commission reacted to this by only marginally changing the themes and the types of projects to be supported under FP7. The list of themes has been slightly expanded and the new theme(s) Security and Space has been added.

Concerning the types of projects, which are now called "funding schemes" instead of "instruments", the Commission also retained the main lines from FP6, with some changes:

- The Integrated Projects (IP) and Specific Targeted Research Projects (STREP) from FP6 will be merged into a single project type, the Collaborative Project. However, for practical reasons, DG RTD will most likely distinguish between "small" and "large" Collaborative Projects when issuing calls for proposals.
- The Networks of Excellence (NoE) will remain as one of the main funding schemes. This instrument of FP6 had been criticised: Some NoEs with a large number of partners revealed to be unmanageable and the purpose of this type of project was not always clearly understood. The Commission will provide more precise guidelines for NoEs, making clear that it is a funding scheme to support integration activities, rather than single research projects, and better defining its visions about the size of such NoEs.
- The Coordination Action (CA) and the Specific Support Actions (SSA) will be merged into Coordination and Support Actions (CSA).

Other types of schemes, like ERA-NET, Art. 169 (see also article above), dedicated SME projects, Marie Curie Actions (see article above) and support for infrastructures will also be continued. They will be complemented by the new Individual Projects of the ERC and the Joint Technology Initiatives.

Concerning the implementation of the calls for proposal, DG RTD foresees to make use of joint calls (with funding coming from two different thematic budget lines) as well as coordinated calls (results of two separate, but parallel calls that can be compared) besides calls in a single theme. Joint calls could also involve different programmes (e.g. Cooperation and Capacities). The two-stage evaluation procedure will be widely used for Collaborative Project calls, with the initial submission consisting of a short proposal, followed by a full proposal if the project passes the first stage. Coupled with the planned simplifications of administrative procedures and the generalised use of electronic submission, these measures might help alleviate some of the negative experiences felt by many researchers participating in the Framework Programmes.

European Institute of Technology: a step further towards its creation

Although not directly related to the 7th Framework Programme, the recent discussions on the setting up of a European Institute for Technology have had many connections with at least parts of FP7. When in February 2005, Commission President Barroso first set forth the idea for the creation of a European Institute of Technology (EIT) to help Europe bridge its research and innovation gap and to strengthen the "triangle of knowledge", i.e. education, research and innovation, the idea was coldly received.

A first stakeholder consultation at the end of 2005 revealed that the reactions were critical, if not blatantly negative: most participants did not see the advantage of copying the Massachussetts Institute of Technology (MIT) on a European scale. Moreover, the building up from scratch of a physical institute with world-leading capacity was deemed unrealistic. Many universities felt that it was not the lack of world-class research and education institutions that was Europe's problem, but rather the lack of technology transfer activities as well as of mobility and exchange between research and industry. On the other hand, certain MEPs led by Jorgo Chatzimarkakis felt that this was the right project to help them to get rid of the Parliament's constant shuttling between Strasbourg and Brussels: the new EIT could be located in the Parliament's buildings in Strasbourg.

Based on this consultation, the Commission presented a first Communication on the creation of an EIT on 22 February 2006, which was then presented to the Heads of State and Government at their meeting of 23-24 March. This European Council agreed on the principle of such an institute, but asked the Commission to refine its proposal until the next European Council meeting on 15-16 June. Based on the outcome of additional stakeholder meetings, the

Commission tabled a second Communication on 8 June (see link below) which addressed some of the concerns and clarified a number of points, while letting others open:

- Mission: The precise mission of the EIT is still a debated issue. For the Commission, the EIT will be a science operator rather than a funding instrument, acting on all three corners of the "knowledge triangle" (i.e. education, research and innovation). Some stakeholders would rather like the EIT to be a funding agency, similar to the ERC, that would concentrate on innovation and technology transfer, where they believe the biggest deficiency of European science lies.

- Budget: One major concern was that the EIT would be financed by the already reduced FP7 budget. It was especially feared that money could be diverted away from the ERC, which for a lot of key players represents much more of a true "European flagship" than the planned EIT. Later, the Commission thus guaranteed that the FP7 budget, including the ERC, would not be touched and that the EIT's financing would originate from reshuffling other expenditures on the occasion of the revision of the Financial Perspectives in 2008. According to the EU's budgetary rules, the source of financing will depend on the article of the EC Treaty the EIT proposal will be based on (the appropriate Treaty article has not been identified yet – see below). The Commission also foresees a substantial involvement the private sector; first contacts with industry leaders and foundations are currently underway.

- Structure: The EIT will be set up as a virtual institute composed of a Governing Board and several "Knowledge Communities". The Governing Board, supported by a light support structure, will identify the strategic scientific and technological challenges in interdisciplinary areas and select the Knowledge Communities. These will be identified based on a mix of top-down (strategic topics identified by the Board) and bottom-up (teams and departments create partnerships in these fields) approaches. After selection, each Knowledge Community would set up its own operational structure, with autonomy and flexibility in the management of their resources (including human resources; see below). This process will be overseen by the Governing Board.

- Human resources: The Commission's initial proposal that researchers joining the Knowledge Communities would have to be seconded to the EIT was met with criticism from many academic institutions, which feared a loss of their best human potential. Consequently, a range of options including secondment, dual affiliation and temporary attachments ("sabbaticals") are foreseen in the new proposal. Each Knowledge Community will be able to choose the most suitable option for its members.

- Degrees: The Commission foresees that the EIT should award degrees. This proposal is mainly criticised by universities. A compromise could be that the education mission of the EIT would be restricted to postgraduate degrees (mostly PhD).

- Legal structure: The Commission sees the EIT as a single legal structure, whereas other stakeholders propose that each Knowledge Community be a single legal entity.

- Treaty basis: The final Treaty article on which a legal proposal for an EIT could be based has not yet been identified. The articles pertaining to research activities are mostly limited to the Framework Programme, and the Commission has only limited competences in the field of education. A possibility could be the use of Art. 308, which allows for special projects to be undertaken in areas critical for Europe. However, this article requires unanimity of all member States and has the added disadvantage to leave the Parliament out of the decision-making process. Apart from the obvious democratic deficit it implies, this solution could become detrimental, especially when the budget for the EIT has to be approved.

After a further round of stakeholder consultations on 7-8 September, where the second Communication will be discussed, the Commission will present a legislative proposal to the Heads of State and Government at the informal European Council meeting of 19-20 October. This proposal will need to detail the Treaty base as well as the source and amount of financing of the future EIT. Moreover, after considering the many suggestions for renaming the project, a final name for the EIT will also have to be found.

The Commission's second Communication "The European Institute of Technology: further steps towards its creation" can be found under:
http://ec.europa.eu/education/policies/educ/eit/comm_8_6_06_en.pdf

FP7 websites

CORDIS FP7 website
http://cordis.europa.eu/fp7/

EUROPA FP7 website
http://ec.europa.eu/research/fp7/

FP7 key documents

FP7 Proposal (Commission revised proposal, 28.6.2006)
http://ec.europa.eu/research/fp7/pdf/amended-28_06_06-en.pdf

Rules of Participation proposal (23.12.2006)
http://ec.europa.eu/research/future/pdf/com2005_0705en01.pdf

Proposals of the Specific Programmes (revised, 24.5.2006)
Cooperation: http://ec.europa.eu/research/fp7/pdf/COM_2005_0440_F_EN_ACTE2.pdf
Ideas: http://ec.europa.eu/research/fp7/pdf/COM_2005_0441_F_EN_ACTE2.pdf
People: http://ec.europa.eu/research/fp7/pdf/COM_2005_0442_F_EN_ACTE2.pdf
Capacities: ftp://ftp.cordis.europa.eu/pub/fp7/docs/capacities_amended_en.pdf

FP7 legislative process

Report of the European Parliament on FP7 proposal (1.6.2006)
http://www.europarl.europa.eu/omk/sipade3?PUBREF=-//EP//NONSGML+REPORT+A6-2006-0202+0+DOC+PDF+V0//EN&L=EN&LEVEL=2&NAV=S&LSTDOC=Y

The Council of Ministers' political agreement on FP7 (25.7.2006)
http://register.consilium.europa.eu/pdf/en/06/st11/st11978.en06.pdf