

## TACIS ISTC/STCU ACTION PROGRAMME 2003

### 1. Identification

<i>Form of programme:</i>	Regional
<i>Beneficiary</i>	ISTC: Russian Federation, Belarus, Kyrgyzstan, Kazakhstan,
<i>Country/Title:</i>	Armenia, Georgia, Tajikistan
	STCU: Ukraine, Georgia, Uzbekistan
<i>Budget year:</i>	2003
<i>Financial allocation</i>	€25 million
<i>Budget Line:</i>	B7-520
<i>Legal basis:</i>	Council Regulation (EC, EURATOM) No 99/2000 of 29 December 1999 concerning the provision of assistance to the partner states in Eastern Europe and Central Asia
<i>Duration:</i>	The period of operational implementation of this financial agreement shall begin with the signature of the Bilateral Financial Agreements with each of the ISTC and the STCU centre, no later than 31 December 2004 and shall end by the 31 December 2007.
<i>Implementation:</i>	DG/RTD by sub-delegation from DG AIDCO
<i>Remarks:</i>	

### 2. Summary of the programme

In accordance with the New Tacis Regulation 2000-2006, Title I, Article 3, the ISTC and STCU programmes fall under the category “Multi-Country Programmes”.

The ISTC-STCU Financial Proposal 2003 is based on the previously established Indicative Programme (IP) which outlines the background and the legal basis for the operation of the two Centres, their activities and achievements so far, and the activities that are proposed for Community assistance for the year 2003.

The IP gives emphasis to the following objectives:

*Non-proliferation of expertise.* The Centres’ activity will focus on supporting projects and activities that create potentially useful, high value scientific employment for WMD scientists of the NIS (Newly Independent States) and thereby durably lower the risk of a brain drain to potential dangerous countries and organisations. This objective is shared by the Kananaskis G8 declaration on Global Partnership, promoting therefore ISTC as a primary tool to achieve the G8 Global Partnership objective of non-proliferation of expertise.

*Creating Industrial Partnerships:* The Centres will establish themselves as consistent “match-makers” that creates and nurtures commercial and technical partnerships.

*Creating High-Tech R&D Base in the NIS:* The Centres' training and technology development activities will be used to facilitate on one side, the structural adjustment of institutes willing to demonstrate their ability to conduct cost effective research and on the other hand, the development of self-supporting innovative structures in NIS countries.

*Integrating NIS science into the world scientific community:* The Centres will be active sponsor of workshops, conferences, and symposia, and to support the travel of its scientists participating to international scientific and business gatherings. In addition and as concern research project proposals, the Centres will promote adoption of international scientific and commercial best practices by NIS scientists.

In general, the Parties have confirmed the continuing importance of the Centres, as model organisations and multilateral instruments to address non-proliferation concerns. In this context, the Governing Board of ISTC has approved of the Centre's direction during a period that could extend until the end of the decade:

- Enlarge the Centres' mandate so that they may address other non-proliferation issues of international significance, and
- Provide an efficient and effective organisation that is responsive to ISTC Partners including governmental agencies and private industry.

### **3. Background**

The International Science and Technology Centre (ISTC) and the Science and Technology Centre of the Ukraine (STCU) are inter-governmental sister organisations that are partly funded by the European Commission. The ISTC agreement was signed on 27 November 1992 by the United States, Japan, the European Commission and the Russian Federation. The STCU agreement was first signed in 1994 between the Ukraine, Canada, Sweden, and the United States; the European Commission joined in November 1998.

The beneficiary countries of ISTC are: the Russian Federation, Kazakhstan, Kyrgyzstan, Belarus, Armenia, Georgia and Tajikistan. The beneficiary countries of STCU are: Ukraine, Georgia, Uzbekistan and Azerbaijan. Discussions are ongoing with Moldova to accede either the STCU or the ISTC Agreement.

The main purpose of both centres is to give Russian and NIS scientists and engineers that possess knowledge and skills related to weapon of mass destruction or missile delivery systems, opportunities to redirect their talents to peaceful activities. The Centres are and remain WMD non-proliferation programmes, allowed by governmental decrees to operate within the limit of military territories where R&D is being conducted. The Centres' mission is therefore to organise the redirection of WMD scientists' activities, through supporting innovative projects in science and technology. In so doing, these programmes are expected to induce business opportunities for both NIS and EU companies through launching of new commercial joint ventures.

The total budget between 1994 and March 2003 from all Parties to the ISTC (STCU figures in brackets) was approximately USD 441 million (USD 64 million), which supported about 1 628 projects (455 projects) and 51 000 scientists (11 000 scientists). The EC contribution, through the Tacis Programme, for this period was €77 million to ISTC

and €12 million to STCU. In 2002, 301 new ISTC and 96 new STCU projects were funded for respectively USD 78.6 million and USD 15.5 million. ISTC supported 26 500 participants, for a total of grant payment reaching USD 42.5 million, while STCU supported 4 200 participants. Projects have been conducted in the areas of biotechnology, environment, information technologies, nuclear safety, chemistry, space technology and energy.

In general, the Parties have confirmed the continuing importance of the Centres. The Chairman of the Board, Ambassador Ronald F. Lehman, stated in 2001: “The ISTC has truly been an experiment, a successful one. For nations leaving behind the Cold War, it has demonstrated a new path. For newly independent nations, it has kept parties working together and has added new parties to the mix...it has provided an opportunity to build meaningful ties where there was once isolation.”

Despite its successes and the passage of a decade, the NIS states supported by the ISTC and STCU have not yet been able to reach a position where they are able to support their former WMD scientists without outside assistance. The Parties to both Centres recognised therefore that, to accomplish their non-proliferation objective will require supporting the Centres until the end of this decade.

However, the Agreement recognises *‘that the success of the Center will require strong support from governments, foundations, academic and scientific institutions, and other inter-governmental and non-governmental organisations.’* In that regard, the partners’ program instituted by the ISTC in 1998 contributes to enhancing the ISTC’s ability to reach its non-proliferation objective. It further establishes the root of an exit strategy for the parties so that the Centres can continue operating at the present level once Parties designated Centres funds begin to disappear.

In addition, the overall international environment provides a new impetus to build upon the successes of ISTC, undertaking further activities in support of the Global Partnership towards non-proliferation and Disarmament, launched at the G8 Summit held in Kananaskis in 2002. Indeed ISTC and weapon laboratories benefiting from ISTC activities, have already conducted preliminary S&T projects to qualify technologies necessary to future large undertakings of the Global Partnership, favouring therefore involvement of Russian engineers in conducting Disarmament projects.

#### **4. Legal Basis**

The ISTC and the STCU are based on two separate but similar agreements. The ISTC agreement was signed on 27 November 1992 by the United States, Japan, the European Communities (EEC and Euratom) and the Russian Federation. The agreement was concluded by the Community on 21 December 1992.

The STCU agreement was first signed in 1994 between the Ukraine, Canada, Sweden, and the United States. The European Communities (EC and Euratom) joined the STCU agreement in November 1998. The STCU has a more limited budget than ISTC, but the objectives, operation and structure of both centres are largely the same.

#### **5. Objectives of the ISTC/STCU**

The objectives of the commitment of Tacis funds to the ISTC-STCU for the year 2003 are to allow the EU to maintain its presence within these Centres, and to participate in the funding of new projects and other activities of the Centres.

The general objectives of the ISTC and STCU are laid down in Article II of both ISTC and STCU Agreements and can be summarised as follows:

- Provide weapons scientists in the NIS with the opportunity of redirecting their talents to peaceful activities;
- Support basic and applied research and technology development;
- Contribute to the transition to market-based economies;
- Foster the integration of scientists and engineers from NIS states into the global scientific community;
- Contribute to solving national and international technical problems.

The projects cover a broad range of science and technology areas, many of which address problems of global importance such as:

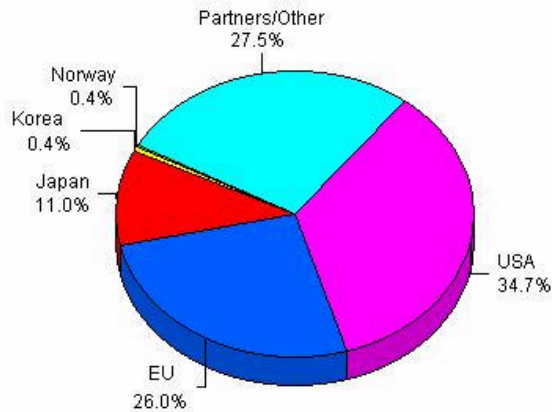
- Environmental remediation and monitoring;
- Improved safety for nuclear reactors;
- Efficient concepts for future energy production and global monitoring of environment linked with energy transport;
- Health observation networks for emerging and re-emerging diseases, including new vaccines and treatments for bacterial and viral diseases.

## **6. Overview of past and current operation issues**

### ***6.1. Main achievements of ISTC activities.***

Since 1992, the ISTC programme has supported about 51,000 WMD scientists to reconvert towards civilian activities. It is worth noting that these activities include support to more than 4,000 WMD scientists living in closed nuclear cities such as the Russian Nuclear Closed cities like Sarov and Schnezhinsk. This has been achieved through support to the development of civilian projects covering a wide range of sectors such as energy production, controlled fusion, basic research, nuclear safety, environment, biotechnology, space and aeronautics, materials, medical technologies, and electronics and computers.

Most of these projects have been medium-sized (0.35 million USD each) with a duration of two to three years. The financial contribution of the EC represents in total approximately 26% of the total funding, second to the support allocated by the USA (34,7%). In absolute figures in March 2003, the EU support of ISTC projects amounted to more than €90.9 million.



*Fig. 1: Share of project funding in ISTC since 1994.*

In terms of scientific and technical content, the 2002 programme has not differed much from those implemented earlier, the Centre having engaged itself on re-structuring its organisation along the following guidelines:

- Evolution to Partnership (E2P): while the Centre were operating on supporting the technology push process, the Centres will now focus its activities on a programmatic approach, responding to demands of the Parties and their Industry partners. In this partnership process, beneficiary institutes are encouraged to employ their relationships with Partners to forge new initiatives, while the emergence of “science/technology targeting” initiatives will address developmental needs in conjunction with national priorities. This Partnership approach is rooted on the following:
  - National Scientific Priorities - the recognition that the CIS countries are developing national priorities for scientific and technological excellence and developing strategies and programmes that will allow them to tap into their scientific and technical potential as a source of economic growth and stimulus, as is the case in all developed countries.
  - Entrusting - the recognition that some institutes, having participated with the Centre and other organisations are now ready to evolve to the next level of participation which includes assuming some management and operational tasks that have previously been reserved to the Centre.
  - Graduation to Evolution - the recognition that the recipient Parties and their institutes have competencies, confidence, and resources that allow them to operate independent of the Centre.
- Enhancing Partner Activities: Partnering and sustainability (and ultimately graduation) are ultimately linked and that the Centre must make itself more attractive to potential Partners in order to increase partner activity. A Partner Department under a DED has been formed and the Centre now operates more on a functional basis to reflect business principles and operate efficiently and effectively.
- Improving Centre’s Operation: In the revised organisation the Executive Director (ED) focus on the strategic aspects of the Centre’s relationship to the Parties and the

international community. The operational elements receive the full-time attention of the Deputy Executive Directors. The ED, through the Executive Committee reviews operation of the Centre and manage problems through the DEDs rather than directly as before. This raises the ED's profile to the level that is typical of international organisations – a head of mission rather than an operational manager.

## ***6.2. Partnering Programme.***

The Partner program results from the application of Article XIV of the Agreement foreseeing that Governments may chose to direct some of their cooperation programs through ISTC (particularly other nonproliferation and threat reduction programs) to enhance the status of ISTC and achieve economy of scale.

In 2002, the partners programme is growing and represents 50% of activities supported by ISTC. However, this observation is to be evaluated against the following indicators:

- out of all ISTC Partners funding, about 80% is provided by US governmental agencies;
- although important, Industry Partners activity is yet too low to consider that the Centre could become self-sustainable.

Upon that observation, ISTC needs to be working toward achieving reasonably balanced programs, mixing Parties and Partners research projects and activities. This may take another 5 to 10 years to achieve according estimation from the Parties, due to a stringent security culture and a comparatively lack of innovative culture, both hampering the capacity of weapon laboratories to demonstrate their ability to conduct research projects, responding to demands of the Western Industry.

So far the ISTC/STCU Partner Programme, which is now becoming the second largest contributor of project funds, has mainly been implemented through public funding (via national or international research organisations). In the future, the private sector from EU Member States should be better mobilised to contribute to this programme. This may imply new procedures to share the cost of the projects between the Commission and the Partner. In addition, dedicated promotion workshops and conference in the European Union are being organised, with a view to mobilising resources from the private sector and from the programmes financed by the EU Member States.

## ***6.3. Science programmes.***

Modern science not only involves public research organisations, but a balanced mix of industries and national laboratories. In each of the ISTC Parties, ISTC projects are no longer considered as isolated, finite projects, but as projects providing some potential for exploitation, either in the non-profit science sector or in the private sector.

The EU Contact Expert Groups management model, initially developed for the benefit of the EU management of ISTC projects, is now being transferred to the Centres' organisation with the objective of favouring the establishment of scientific communities uniting efforts of renowned experts, including Russian and CIS scientists as equal members, and developing road maps of technological development, in which the ISTC added value is evaluated against other research programs conducted in the Parties (US, EU, RoK and Japan).

This effort contributes to the advancement of science in specific sectors, from fundamental to applied research and in specific topical areas as diverse as high energy physics, fuel cells, lasers, space exploration, advanced nuclear reactors, nuclear safety. Other areas could directly benefit from such a network management such as medical instrumentation, biotechnologies, nanotechnologies, and technologies useful in preventing terrorism.

As a result the ISTC Science and Technology Departments have been tasked with:

- Identifying new directions susceptible of larger development in specific science sectors, with the assistance of the Science Advisory Committee;
- Making use of the ISTC international network to foster cooperation in specific science sectors, involving Russian and CIS scientists together with their counterpart in the Party research community, with a view to provide key information on projects that would directly contribute to the advancement of the domain;
- Developing a sense of reality regarding what technologies could lead to self-sustainability.
- Supporting structures enabling management by Networks, and in so doing promote Industrial Partnering.

#### **6.4 Main achievements of STCU activities.**

The EC has fund the STCU since 1998. The level of funding allocated is lower than to ISTC (€8 million as against €80 million for the ISTC). This represents not more than 13% of the total funding provided by donor countries. Nevertheless, this programme has funded projects covering a wide technology spectrum, including:

- Nuclear safety;
- Environmental monitoring and protection;
- Energy saving and production;
- Medicine, health care and biological technologies;
- Information technologies;
- Experimental technologies in equipment, measuring systems, material design and coating.

In addition and at the request of the EU, STCU has developed a Land mine destruction programme to which the EU will contribute an initial sum of 400k€ to conduct projects, under the joint leadership of Ukrainian and EU scientists.

The Partnering programme provides the following trends: among 21 governmental partners, 15 are active and have financed 50 projects for US\$7.9million; among the 58 commercial partners, 35 are active and have financed 53 projects for a total of US\$6.9million, with one singularity “K+S Services” having invested US\$3.1million. By comparison with ISTC, the STCU Partnering programme is better balance. In particular one should underline the Canadian effort to promote the Partnering programme towards SMEs, providing Canadian SMEs with support of the University of Manitoba, in order to

identify innovative technologies to be jointly exploited. As a result Canada has 33 Partners, mostly SMEs, which have invested about US\$1million.

The main issue in 2002 has been however to resolve the question of the STCU premises that had generated a situation of Force Majeure on October 11, 2002. This situation is now under control and the STCU could resume its activity in January 2003, after completing its relocation at Kamenariv 21 in the Kiev outskirts.

## **7. ISTC/STCU Activities for 2003**

### ***7.1. Prioritisation of R&D Activities.***

The R&D activities to be conducted in 2003 within the ISTC-STCU agreement should focus on broad topics, namely:

- Space and aeronautics technologies, for which Russia and Ukraine still have a competitive advantage, and which should open up business opportunities. This activity should also reinforce the links between the European Community, the European Space Agency and the Russian Space Agency and hence allow a better coordination of the overall European Union actions in these countries. Subject of particular interest will include space exploration, testing of re-entry vehicle, robotics, inflatable technologies, scramjets, etc... This will also include interaction with Expert Groups, like the EHA<sup>1</sup> association, and relation with financing partners EADS LV, DMBA and Airbus.
- Contribution to fundamental research through activities in the field of high energy physics. This activity should reinforce the links established with a number of European research organisations, such as the CERN near Geneva or DESI in Germany. In addition, these topics benefit from funds of the Russian federation, supporting a network of research institutions and including the Russian Nuclear Closed cities with other renowned institutes like Dubna and Serpukov. This support shows the national priority given by the Russian Federation to this cooperation. As a synergistic mechanism, the EU will continue supporting projects involving development of low cost crystals used for advanced pet scanner, in association with CERN and other Russian laboratories previously engaged in laser guiding weapons, like Bogorodisk.
- Laser technologies: these technologies are in high demand in Europe and have led to interesting proposal, such as the creation of the “International Facility for Research about Interaction of Picosecond Laser Radiation with Matter” a jointly managed laboratory at the Efremov Institute with two European Partners: DLR and Cilas. This approach should help this laboratory to become sustainable and hence accomplish locally the civil reconversion of this particular laboratory.
- Fuel cell technologies: this programme launched as the first technology programme of ISTC is supported by the EU, together with the US and Japan. In essence this programme focus its activity first on a demonstration of the prototype of a standalone 5kW fuel cell system, providing enough power to a set of diagnostics

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<sup>1</sup> EHA: European Hypersonic Association.



providing information on the safe operation of pipelines, which are in high demand from oil and gas companies in Russia and elsewhere. This programme will include networking between WMD engineers and their western counterpart and has been recognised as potentially sustainable.

- Actions in the field of nuclear safety and security. Projects in this area will be monitored by existing Expert Groups set up by the EU and will participate to improve by design the safety of reactors for energy production and the transmutation of weapon-grade plutonium and other long-lived radionuclides.
- Development of biotechnology and life science, and technologies to prevent proliferation of dangerous pathogens.
- Development of Information Technologies, in particular as concern applied mathematics, including software algorithms for chemistry, biotechnology and other scientific domains.
- Chemistry, in particular new catalysis systems and advanced low CO<sub>2</sub> technologies.
- Materials, including manufacturing technology, high performance metals and alloys; composites; materials synthesis and Processing.
- Nanotechnologies, including nanomaterials, nanoceramics and carbon composites.
- Environmental projects like *those affecting the North West Region of Russia, the Northern Dimension Environmental Partnership and other similar projects*, and to allow dismantling research and power nuclear reactors.
- Economic development of closed nuclear cities, since an important part of the WMD scientists still live in these cities. This will be carried out by means of the international working group supporting the European Nuclear City Initiative, promoting the creation of industrial and commercial activities in these cities, with the support of institutional partners, like the UK DTI.
- In addition, the EU will continue supporting business and specific training, patenting, travel and actions of valorisations, including road shows in Europe, high level visits from EU decision makers, visits of Russian and NIS scientists to Industries and public research laboratories in Europe, participation of CIS scientists to exhibitions and conferences and support to ISTC sponsored conferences such as the one organised by the ISTC Scientific Advisory Committee.

The STCU programme, while globally reproducing the approach developed for ISTC, should mainly focus on applied researches, including sensors, aeronautics, launcher systems, chemistry and biotechnologies, nuclear safety and waste management.

These topics are in line with the outcome of the previous ISTC programme as well as with priority actions that evolve from a number of other EC-funded collaborative and technical assistance programmes.

## **7.2. Completion of infrastructure works.**

Offices will be opened in Tajikistan and Azerbaijan, which acceded respectively to the ISTC and STCU agreements.

In addition, the STCU and ISTC relocation to their new premises will incur further non-recurring administrative costs.

### ***7.3. Exploration of the scientific and technical cooperation.***

The ISTC and STCU programmes are enhancing their pro-active approach in order to further exploit the scientific and technical cooperation between the Parties and the NIS countries, hence serving the non-proliferation objective of the Centres.

Scientific and technical innovations resulting from cooperation are being protected where appropriate, in particular in the Eurasia zone, maintaining the specific funding allocated for this purpose.

In the course of their operation and in addition to activities sponsored by the Centres' Parties, the Centres have implemented in 1998 a Partner programme, perceived then as an addition necessary to meet the Centres' objectives. The partners program is a growing success and it now represents a substantial portion of the efforts of the ISTC. Upon that observation, the Governing Board of ISTC concluded in October 2002 that the ISTC needs to continue working toward achieving reasonably balanced programs mixing Parties and Partners research projects and activities, and that it probably would take another 10 years to do so. This conclusion is also valid for the STCU.

### ***7.4. Evolution of ISTC and STCU.***

According to the Nuclear Safety and ISTC-STCU Indicative Programme for the period 2004-2006, the Centres' direction during that period and starting with 2004 is to:

- Enlarge the Centres' mandate so that they may address other non-proliferation issues of international significance, and
- Provide an efficient and effective organisation that is responsive to ISTC Partners including governmental agencies and private industry.

### ***7.5. Budget.***

The proposed budget is €25 million to cover both ISTC and STCU activities. The indicative allocation is €21 million and €4 million for ISTC and STCU respectively.

## **8. Implementation**

The ISTC and STCU are intergovernmental organisations established respectively in 1992 and 1994 by agreements between the European Commission and the United States, Japan and the Russian Federation for ISTC and the Ukraine, Canada, Sweden and the United States for the STCU. The European Commission joined the STCU in November 1998.

The European Commission, together with other Parties to the centres, support activities of the ISTC and STCU operating bodies and organises regular Governing Board meeting for each centre. The Governing Board of the ISTC and the Governing Board of the STCU review the centres non-proliferation policies and programmes, approve budgets and set new initiatives for each centre. An ongoing Board activity is the review, approval, and funding for proposals of the submitted projects. Following each meeting, the Governing Boards issue listings of new science projects, which have received funding.

The management and administration of the ISTC and the STCU including authorising officer powers are sub-delegated from DG/AIDCO to DG/RTD, Directorate-General for Research. DG RTD coordinates as appropriate with other DGs in their areas of responsibility and thereby promotes networking management benefiting from the Commission's experience, devoting particular attention to technical implementation, monitoring and review.

The Financial Decision if approved will authorize the budgetary commitment of 21 millions Euro for the ISTC and 4 millions Euro for the STCU in 2003. On the basis of those budgetary commitments DG RTD will sign legal commitments in the form of Bilateral Financial Agreements with the ISTC and the STCU respectively. The Bilateral Financial Agreements will be signed no later than the 31 December 2004.

The Bilateral Financial Agreement to be signed with the ISTC will specify the financial contribution of the European Commission as follows:

- €16.5 million will be used to finance projects,
- €4.5 million will be used to finance for the Centre's 2003 administrative operational budget and activities, for service contracts of EU personnel (temporary scientific staff of EU nationality) occupying ISTC positions, and a non-recurring provision to contribute to the renovation of the new ISTC premises.

The Bilateral Financial Agreement to be sign with the STCU will specify the financial contribution of the European Commission as follows:

- €3.4 million will be used to finance projects,
- €600 thousand will be used to finance the Centre's 2003 administrative operational budget and activities, for service contracts of EU personnel (temporary scientific staff of EU nationality) occupying STCU positions.

In the case of both Centres, the projects typically contain a mixture of a grant element covering the salary of the scientists employed on the research project and the project may involve a procurement element for supplies, services or works.

On the base of the Bilateral Financial Agreements signed with the ISTC and the STCU, the centres will have responsibility as contracting authority to sign grants and procurement contracts with final beneficiaries. Target beneficiaries are NIS scientists who will submit their projects in response to open calls for proposals organised by the Centres within Russia and the Ukraine respectively. As described above the scientists targeted by the action are those who would normally be working on WMD.

- Wherever the Centres act as contracting authority using the instrument of grants, the Community rules applicable to such management arrangements have changed. DG

RTD will have to review the implementation specifications in each Bilateral Financial Agreement taking into account the new DG Aidco Practical Guide and the requirements of the Financial Regulation and its Implementing Rules.

- Wherever procurement contracts are tendered and signed by the Centres these are governed by international procurement rules approved by their respective Governing Boards. DG RTD has verified those rules and it is confident that the rules give a guarantee equivalent to internationally accepted standards in accordance with the Financial Regulation. The applicable rules on procurement will be specified by appropriate provisions in each Bilateral Financial Agreement.

The period of operational implementation of financial agreement shall begin with the signature of the Bilateral Financial Agreements with each of the ISTC and the STCU centre, no later than 31 December 2004 and shall end by the 31 December 2007. Activities provided for under this programme and including projects financed in the form of contracts and/or grants shall end by December 2007.

Subject to the review of the Bilateral Financial Agreements and the implementation arrangements to be agreed therein, the services will seek an equivalent level of guarantee and control in accordance with the possibilities offered by the Financial Regulation, its Implementing Rules, and the AIDCO Practical Guide.

DG RTD cannot at the present time give an indication of the expected calendar for the calls for proposals or the tendering procedures which will be organised by each Centre or a breakdown for the amount of each call or tender.

### ***8.1. Financial control and audit.***

Operations financed under the ISTC and STCU programmes will be subject to supervision by the relevant Commission services and the Court of Auditors, to be carried out on the spot if necessary. The accounts and records of expenditure under the present programmes may be checked at regular intervals by an external auditor contracted by the Commission, without prejudice to the responsibilities of the Commission, including the European Antifraud Office (OLAF), and the Court of Auditors.

Periodic financial reports are provided to the Parties and the Boards on the Centres' administrative expenses, contracts concluded for projects awarded and relevant detailed expenditure (ISTC Statute, Art. XV; STCU Statute, Arts. XV and XVI).

In the case of the ISTC, an auditor approved by the Boards and provided by the four Parties on a rotation basis is appointed to conduct annual audits of the Centre's expenditure and related financial activities (ISTC Statute, Art. XVI(B)).

### ***8.2. Project monitoring***

The Commission does not directly monitor the activities or results of the work of scientists who are participating in EU-funded research projects. Instead, the Commission relies on the mostly Russian technical specialists and accountants at ISTC overseen by managers from the European Union, the United States, and Japan to monitor scientists' progress in completing their research. The Commission also uses outside monitors to conduct reviews of a sample of EU-funded projects.

Project monitoring of the STCU follows the same procedure as for the ISTC. Regular on-site monitoring is undertaken by the STCU Senior Project Managers. Upon request of the Parties, specific monitoring missions are organised by the STCU, in compliance with Article XV of its Statute.

The ISTC's output has been in general in conformity with the work-plan, though the monitoring team discovered for some projects problems in the field of implementation. The evaluators also noticed some weaknesses in the potential sustainability of some projects.

The monitoring procedures set up by the ISTC at the beginning of 1996 continue to work to the satisfaction of the Parties. The Parties receive progress reports on the projects that they finance or co-finance. In addition, at each Governing Board meeting, the Parties receive a list of projects that have been monitored on site in the course of the previous quarter and a schedule of projects to be monitored on-site for the coming three months. This is a convenient way for the Parties to request specific information on the projects.

In the same manner as for the ISTC, the Commission intends to set up European expert groups by technology area to provide scientific reviews of EC-funded STCU projects. For that purpose, the Commission plans to delegate this task to experts who will be responsible for following up each project and for providing periodic scientific assessments of work-in-progress.

The main tasks of these experts will consist in analysing the implementation reports, visiting projects on-site, and attending internal (within the Commission) and external (with European collaborators) progress meetings with a view of assessing the prospects of commercialisation of STCU projects in each area of technology.

In addition to the follow-up and controls carried out by ISTC and STCU on a regular basis, the Commission's services and the Court of Auditors may choose to audit project on the spot, or conduct independent ex-post evaluations periodically, in order to assess the relevance, effectiveness, efficiency and impact of the programme.

In addition to on-site visits, the EC monitors projects through meetings held in Brussels with the European collaborators who participate in the project execution, thus providing periodic assessment of progress.

## **9. Cost and financing**

The total amount of this Financing Proposal is €25 million.