

Topical Summary of the
ISTC-Contact Expert Group on Nuclear Transmutation related Projects
Annual meeting – 2006, Brussels, January 30 - 31

The list of participants is given in [Appendix 1](#). The proposed draft agenda was accepted ([Appendix 2](#)).

B. Rhode, J. Sanders, M. Hugon, D. McNelis and A. Bychkov were specially invited for the CEG meeting.

The CEG meeting consisted of three parts:

- I. General issues, programmatic approach.
- II. On-going projects reports
- III. Analysis of proposals

I. General issues, programmatic approach

1. W. Gudowski, Chairman CEG,

- thanked M. Hugon for his work as a secretary of the CEG Transmutation and Partitioning (T&P),
- paid tribute to late four Russian scientists, leaders of ISTC projects, B. Murin (#1653), E. Efimov (#0559 and #2083), V. Barashenkov (#17, #2267), and Y. Shubin (#1372, #2578),
- presented a “Short history of the CEG” ([Appendix 3](#)) with its main role as:
 - reviewing and putting priorities on ISTC project proposal in the nuclear transmutation field,
 - preparing and realizing a strategy and working plans for a broad collaboration between European / Western and Russian (CIS) partners using an ISTC frame,
- reminded some milestones of CEG activities since 1998:
 - white Paper defining a CEG mode of operation,
 - lasting cooperation with many projects in Russia, Ukraine and Belarus, with a successful integration of those projects into a broad European collaboration, including projects funded through the European Framework Programs,
 - spectacular success of “Spallation Target Project” ISTC #559, bringing Pb-Bi technology into Europe, Japan, Korea and USA and originating many international projects including MEGAPIE in Würenlingen, KALLA-laboratory in Karlsruhe, Pb-Bi loops in Brasimone, Italy, Stockholm, Sweden and Mol, Belgium,

- gave a comprehensive overview of the ongoing ISTC projects, with particular attention to projects #B070 (**YALINA**) and #2267 (**SAD**), with creation and activities of the SAD/YALINA Steering Committee (SY-SC)
 - the SY-SC had five important meetings since the middle of 2004,
 - played an important role in integration of SAD and YALINA into the EC FP6 Integrated Project EUROTRANS,
 - the “Round table” discussion at JINR Dubna with participation of SY-SC members, JINR management and ISTC executive director caused that SAD was approved as a project of high priority at JINR with significant financial support committed by JINR

 - emphasized the objectives of this CEG meeting:
 - coordinated support for integrated experiments SAD and YALINA for ADS and Transmutation, with integration in the EUROTRANS project,
 - continuation of YALINA experiments (extension of #B070 and links with #B1341),
 - continuation of the nuclear fuel-related projects: nitrides (#3080 - MATINE-2) and molten salts (#1606, #3261),
 - further support for the Pb-Bi technology project (#2048),
 - enhancing interest and coordination in the field of partitioning.

 - Finally, W. Gudowski presented a vision of gradual transforming ISTC mechanisms into regular collaborative projects in the frame of the European Framework Programmes
2. **J. Sanders, European Commission,**
- presented priorities of EC concerning ISTC, stressing that integration of ISTC projects into EC Framework Projects is encouraged,
 - mentioned that the mode of operation of the CEG on Transmutation related Projects has been successfully adopted by EC as a model for other CEG’s and is strongly supported as a good mechanism of interactions with ISTC,
 - pointed out that recommendations of CEG’s and priority lists are not binding for decision makers in EC, but have a very high and respected value.
3. **L. Tocheny, ISTC,**
- put attention on the role of CEG for coordination with preparing the EC 7th Framework Program,
 - described the model of ISTC “partnership projects” and its applications:
 - USA is particularly active in developing partnership projects,
 - For EU only 10-20% of projects are partnership projects
 - mentioned that total funding of ISTC for “non-nuclear” projects is much larger than for nuclear ones,
 - gave information on other ISTC CEG’s: e.g. Plant Life Management, VVER issues, and non-nuclear topics like aeronautics:
 - the CEG on Severe Accident Management (SAM) launched, in the environment of the ISTC WEB-service, a special WEB-page related to its activity. This page contains current and final project reports and CEG reports as well. Some information is restricted.
 - CEG SAM participated actively in an ISTC Specific Training Program. The CEG T&P should follow this examples.

4. **M. Hugon, European Commission,**

reported on the creation and activities of the ISTC CEG for Severe Accidents Management (SAM) projects.

- This CEG SAM has started with analyzing the problems with Corium and later it was extended to much broader topics.
- Currently, eight regular projects and one partnership project are managed by the CEG.
- Three to five more projects are expected after the ongoing preliminary phase.
- CEG discussions were preceded by on-site visits and workshops.
- Eight meetings have been organized in-turn in Russia and in EU countries, usually combined with visits of project recipient institutes and laboratories
- Links to EC FP6 projects are made (SARNET).

5. **A. Stanculescu, IAEA,**

presented ISTC related IAEA activities ([Appendix 4](#)).

- The Coordinated Research Project (CRP) on Analytical and Experimental Benchmark Analyses of Accelerator Driven Systems (ADS) is the largest CRP at IAEA
- A significant part of this CRP is based on the experimental results of ISTC projects #2267 SAD and #B070 YALINA.

6. **C. Broeders, Chairman SY-SC,**

- reported on FZK collaboration with ISTC and on
- activities of the SAD / YALINA Steering Committee ([Appendix 5](#)).

7. **D. McNelis, US North Carolina University, George Russell Foundation,**

- gave general information about the current nuclear fuel cycle situation in USA,
- explained role and activities of the Russell Foundation in Washington, with support for smaller projects dealing with spent fuel management.

W. Gudowski proposed to try to revive the cooperation between EC and USA. Together with D. McNelis he will make an action plan to come to new cooperation with USA partner. Possible funding support by the Frank Russell Foundation for ISTC projects, e.g. #2267 SAD, will be further explored.

8. **B. Rhode, European Commission,**

pointed out that from EC point of view the CEG on Transmutation related Projects and other CEGs in nuclear area have been very successful and have a “pilot function” for creation of other similar CEG’s or advisory bodies, also in “non nuclear” areas. She initiated discussion of the following aspects of ISTC support:

- the question of “smaller” vs. “larger” projects; larger projects are preferable but they carry a larger risk of failing approval,
- differences between project “prolongation” or “extension”;
 - ISTC administrative procedures seem to make it easier to approve project *extensions*, rather than project *prolongations*,
 - The EC management prefers *new projects* to have more clearness for future decisions.
- that the recommendations of the CEG are not obligatory for EC, but have high importance for decision makers, together with other independent evaluations,

- that the main mission of ISTC is the employment of former nuclear weapon experts with current key aspects:
 - the problem of unemployment of the weapon specialists in the “closed cities” in the Russian Federation. This aspect has special attention in the European Community and at international G8 meetings,
 - possible links to activities in “closed cities” in current ISTC Project proposals should be clearly indicated.
- the importance of more mass media attention and more publicity for the role of ISTC.
- the role of ISTC in supporting Training and Education of young scientists. EC representatives explained that these activities are already covered by other EC programs and that it is not primary goal for ISTC.
- Identification of the current main objectives for ISTC projects:
 - the gain of new knowledge about new recognized problems,
 - sustainability,
 - commercialization and
 - non-proliferation.

Finally, B. Rohde gave the following recommendations for successful continuation of EC support for ISTC projects:

- consideration of commercialization aspects,
- collaboration with projects in “closed cities”,
- preparation of strategy papers, with clear presentation of achieved results,
- application for funding from resources allocated at G8 level meetings, e.g. for “closed city” support.

9. Generally, the EC representatives underlined the important contribution of nuclear waste transmutation in view of acceptable solutions for closing the back-end of the nuclear fuel cycle for sustainable energy production. They recognized the unique role of the SAD experiment in Dubna with respect to nuclear waste incineration, being the first technical realization of the coupling of all three major components of an Accelerator Driven System for nuclear waste incineration, namely:

- a proton accelerator creating a high energy proton beam,
- a spallation target producing a high energetic neutron source and,
- a sub-critical assembly to produce fission neutrons for destruction of nuclear wastes.

The integration in the 6. European Framework Program in the currently largest Integrated Project EUROTRANS is highly appreciated.

10. At the end of the meeting **W. Gudowski** reminded that **M. Hugon** not longer can be secretary of the CEG because of his new duties and he proposed as new secretary **C. Broeders**. This proposal was accepted by the participants by acclamation.

11. **W. Gudowski** further summarized the following next year CEG work plan:

- support for SAD continuation,
- revival of Partition issues with participation to the EUROPART meeting in Rome June 2006,

- support for collaboration of ISCT Molten Salt activities at RIAR Dimitrigrad, and KRI St. Petersburg, with the EC FP6 Project EUROPART,
 - next CEG meeting will include more Partition issues,
 - integration of several smaller nuclear data projects into one larger project with special emphasis on needs from the IP EUROTRANS DM5 NUDATRA and from the SAD project (BFS mock-up),
 - prolongation of the ISTC Projects #2048, #2573, #2680, #B070,
 - termination of ISTC Project #2578 with small improvements of the current draft version.
 - Next CEG meeting is planned for Jan. 2006.
- The SAD/YALINA Steering Committee Meetings will be held depending on future developments, especially with respect to funding issues, but at least twice in 2006.

II. On-going projects reports

1. **ISTC Project #1606**, “Molten Salt Loop for Waste and Plutonium Disposal”. **V. Ignatiev, KIAE**, informed about:
 - Progress on schedule with start of the phase 2 ([Appendix 6](#)).
 - Design and construction of unique experimental stand for actinide molten salts.
 - Stand was setup and put into operation at VNIIEF (Cheljabinsk-70).
 - The project team consists of experts from several institutes and may serve as a good example of ISTC approach.
 - Integrated into an IAEA CRP on dynamics of ADS.
 - Special attention was put on the preparation and scheduling of sessions of a project specific training program with planned workshops at CEA Cadarache in March, 2006, and later at VNIITF, Snezhinsk.

Actions: *The report is approved, as well as plans with two-session technical training including the workshop in Snezhinsk (October-November 2006). Collaboration with the other projects on molten-salts study (RIAR, KRI) is highly recommended.*

2. **ISTC Project #2267**, “Creation of Subcritical Assembly Driven by Proton Accelerator (SAD)”. **V. Shvetsov, JINR**, presented the current status of ISTC Project #2267 SAD in Dubna ([Appendix 7](#)).
 - Funding of SAD is a critical issue, but visible progress in resolving some of the economical issues can be observed,
 - significant improved perspectives have been developed since last reporting at SA-SC Meeting in Minsk December 2005:
 - “Special Economic Zone” (SEZ) in Dubna may bring cost reduction for projects like SAD of about 23-29%.
 - Good progress in reconstruction work at the proton accelerator PHASOTRON after the severe fire accident in April 2005; it is planned to recover the proton beam in April 2006.
 - After successful completion of ISTC Project #2267 Phase I, the Phase II can start immediately after approval by ISTC governing board.

- Building construction licensing and negotiations for construction components with companies in the Dubna and Obninsk areas are in progress.
- SAD fuel production is on schedule: fuel pellets will be delivered by the Mayak plant and fuel elements will be assembled with the modernized existing fuel production line for the IBR-30 reactor in Dubna.
- For the construction costs of the SAD building, JINR Dubna has requested at the Russian Federation Ministry of Science and Education full SAD building construction costs of 100 Mrubles, .with reasonable perspective that a significant fraction will be approved.
- In the case of approval of main funding contributions (ISTC and Russian Federation pending), construction of SAD building can start in 2006 and “beam on target” can be expected in 2009.
- Specific critical and sub-critical experiments are planned in the BFS facility in Obninsk for licensing of SAD. Because this BFS experiment could become a critical issue, specification and financing of this experiment within ISTC Project #2267 or by means of other resources (integration within ISTC Project #2884?) must be clarified as soon as possible.
- The details of the SAD funding plan, as proposed on the basis of “one-third- each” for JINR, IP EUROTRANS DM2 ECATS and ISTC, with possible other contributions were discussed intensively.

In a second contribution V. Shvetsov, JINR, presented updated information about SAD funding and ongoing negotiations (Appendix 8). The cost estimate table is based on the information in the “Statement of JINR on the scientific program of SAD in close cooperation with IP EUROTRANS ECATS activities”, see “Finance Issues” in [Appendix 7](#). The data from this document is weighted with current estimates for possible reduction factors. Details of possible funding models and their consequences were analyzed in a constructive discussion. The fundamental requirement that 50% of ISTC funding must be paid to “former weapon specialists” was stressed by the ISTC representatives, as well as the applied very high ISTC funding contributions for the next years. ECATS representatives pointed out the necessity to have information about uncertainties in the weighting factors. It was agreed that V. Shvetsov will prepare as soon as possible a document with more detailed information about:

- a. ISTC relevance of funding positions,
- b. weighting factors with uncertainty estimates and
- c. Russian and JINR contributions.

It was clearly recognized that fast successful continuation of the SAD Project needs approval of applied ISTC funding for phase II of ISTC Project #2267 at next ISTC Governing Board Meeting in April, 2006. Further it was recommended to decrease the short term follow-up contributions of ISTC. At the end of this discussions J. Sanders explained that he can prepare documents for decision making, but that because of the high costs for SAD, “higher level” decisions will be mandatory.

Actions: V. Shvetsov prepares a SAD cost table containing reasonable absolute cost numbers, with corresponding risk information. Further, C. Broeders (chairman SY-SC) and V. Shvetsov, SAD Project Manager, are asked to prepare a document

with the main scientific goals and with a list of potential users of the SAD facility in the future.

3. **ISTC Project #2002** “Experimental and theoretical studies of the yields of residual product nuclei produced in thin Pb and Bi targets irradiated by 40-2600 MeV protons”. The results of this project were presented by **V. Batyaev** and **Yu. Titarenko**, ITEP, ([Appendix 9](#)). The experimental results will be available in EXFOR format soon. It was mentioned that Post Graduate Training Courses are organized at ITEP Moscow. This offer will be forwarded to the collaborators and to CEG members, with more detailed information about participation by Western young scientists.

Actions: *The final report on ISTC #2002 is approved. It was recommended to clarify participation of Western young scientists to the Post Graduate Training Courses, organized by ITEP Moscow*

4. **ISTC Project #2680, IPPE**, “MATINE- Study of Minor Actinide Transmutation in Nitrides: Modeling and Measurements of Out-of-pile Properties”. **W. Gudowsky**, project collaborator, gave a short presentation of the current status of the ISTC Project #2680, based on the “Progress report on ISTC Project #2680”, as prepared by L. Zabudko (IPPE), Obninsk ([Appendix 10](#)). This Project on Nitride fuel is strongly connected to the EC FP5 Project CONFIRM and to EC FP6 IP EUROTRANS DM4 AFTRA. Due to problems with the irradiation facility in Studsvik, the ISTC Project #2680 MATINE irradiation tasks will be done in the HFR reactor in Petten. As Nitride fuel could have problems with reprocessing, alternative solutions with carbide fuel are also under consideration.

Actions: *The CEG recommends strongly the approval of the proposed prolongation of ISTC Project #2680 MATINE and encourages cooperation with fuel and irradiation target production by RIAR in Dimitrigrad.*

5. **ISTC Project #3261** “Study of curium thermodynamics in molten chlorides” . **A. Bychkov**, RIAR, presented the draft work plan of the project. In addition he gave a presentation on “Partitioning related ISTC projects at RIAR and a short overview of the Russian Partitioning program” ([Appendix 11](#)). Part of information was presented on behalf of **I. Smirnov**, KRI, St-Petersburg. Most of the discussed projects are related to molten salt research. Russian institutions have a long time experience with reprocessing and partition projects with various technologies in various areas of the Russian Federation. A. Bychkov informed that Rosatom initiates development of a new technological platform for nuclear power in Russia, which will certainly include a commercial fast reactor with closed fuel cycle, including Partition & Transmutation. The current planning utilizes Sodium as Fast Reactor coolant, but for a next step also Lead will be considered. New ISTC project proposals are:

- a. ISTC Partnership Project #3231 (RIAR-KAERI): “Separation of minor actinides from rare-earth elements on a liquid metallic cathode in molten chlorides”,
- b. ISTC Project #3261 “Study of curium thermodynamics in molten chlorides”,
- c. ISTC proposal #3405 by KRI St. Petersburg, “Development and demonstration of the process for selective recovery of TPE from HLW using binary calixarene extractants”.
- d. Further the “Experimental study on actinide transmutation in the BOR-60 fast reactor neutron spectrum” is under preparation.

A. Bychkov proposed at the end of his presentation the creation of a new CEG on "Partitioning of HLW and Partition in Advanced Fuel Cycle". This proposal was discussed in some detail. It was pointed out that the current CEG on Nuclear Transmutation Projects, in its initial stage, also evaluated Partition related projects, but that this issue had less contributions in favor of integral experiments in recent CEG work. It was proposed to revive evaluation of Partition related projects in the current CEG and to invite the representatives of European projects on Partition to future meetings of the current CEG. Available information will be sent to these representatives. A meeting of CEG members and Partition specialists is proposed for the fall of 2006. Several dates and places for such meeting were discussed (Dimitrigrad, Nimes, Rome).

Actions: *The final recommendation is to keep Partition & Transmutation together in the current CEG and to have a dedicated meeting during the planned EUROPART meeting on Partition in Rome, June 26-29, 2006.*

6. **E. Gonzalez**, CIEMAT, informed about ISTC projects for nuclear data assessment of current interest for CEG discussions, one proposal by L. Ponomarev, Kurchatov Institute, Moscow, and two proposals from BFS Obninsk. These projects are partly of high interest for IP EUROTRANS DM5 NUDATRA, but were approved without funding. A number of proposals on nuclear data measurements is being reformulated to a single project in view of support for IP EUROTRANS DM5 NUDATRA. An important link exists to the ISTC Project #2267 SAD by the highly recommended SAD mock-up studies in BFS for sub-criticality assessment for SAD licensing.

Actions: *The CEG strongly recommends to approve such SAD related experiments as soon as possible, either as part of ISTC Project #2267 SAD, or as a modification of the proposed ISTC project #2884.*

7. **ISTC Project #3266** "Experimental and theoretical study of the residual nuclide production in 40-2600 MeV proton-irradiated thin targets of ADS structure materials" **V. Batyaev**, IPPE, presented at the kick-off meeting of the ISTC Project #3266 details of proposed experiments and analysis, as logical continuation of the ISTC Project #2002 (presentation in [Appendix 12](#)). The proposed work plan is adapted to the availability of the ITEP U10 accelerator in 2006 due to planned modification of this installation. On request of the collaborators, the accuracy of the proton energy determination will be checked and possibly improved in view of comparison with the inverse kinematics measuring methods at GSI Darmstadt. Further the capabilities to measure absolute gas production rates will be assessed. It was mentioned that the selection of Tantalum as target material was initiated by inquiries from the TRADE project with Tantalum proton target. The chairman of the ISTC-Contact Expert Group on Nuclear Transmutation related Projects W. Gudowski concluded the successful kick-off of ISTC Project #3266.

Actions: *The Work Plan was approved, the list of collaborators will be updated.*

8. **ISTC Project #2578**, "Transmutation of radioactive nuclear waste – present status and requirement for the problem-oriented nuclear data base". **Y. Korovin**, IATE, Obninsk, presented the draft final report of this project ([Appendix 13](#)). Goal of the project is to review the status and outcome of the large set of completed

ISTC projects (totally > 30) related to nuclear data, from the following points of view:

- Modern requirements to nuclear data for:
 - P&T designers,
 - reactor and ADS physicists and
 - nuclear data libraries experts;
- Assessment of correspondence of the project results to these requirements;
- Proposals for new experiments.

In addition, recommendation for publication in scientific journals should be given. Y. Korovin has devoted great care to some special components of the project activity, e.g. the role of adequate theoretical models, role of Pu238 and its precursors in the nuclear fuel cycle, etc. On behalf of the project team, Y. Korovin presented some ideas and proposals for further activities.

E. Gonzalez, CIEMAT, project collaborator, presented a detailed analysis ([Appendix 14](#)) of the draft final project report. He concluded that the report is very valuable, but that some modifications should be recommended. Besides some Russian text passages still to be translated into English, the layout and content is generally acceptable. He made some proposals for improvements, especially in the section "Conclusions and Recommendations".

Actions: *Modification of the Final Report along the lines of the recommendation of E. Gonzales and publication of a compact version in an international journal.*

III. Analysis of proposals

1. **ISTC Project #1606**, "Molten Salt Loop for Waste and Plutonium Disposal", see presentation in **section II.1**

Actions: *send recommendation information to ISTC.*

2. **ISTC Project #2048**, "Improvement of corrosion resistance of constructional steels in liquid Pb and Pb-Bi alloys by means of their surface modification with the help of pulsed electron beams and protective coatings". **W. Gudowski**, KTH, collaborator, presented the proposal for an additional work plan on the prolongation of the ISTC project #2048 for two additional years with additional funding. Some documents provided by CEG member G. Müller, FZK, are reproduced in [Appendix 15](#). The project #2048 is strongly supported by FZK and SCK-CEN, with partnership funding contributions by both institutions. The CEG strongly recommends approval of the proposed additional work plan for ISTC Project #2048.

Actions: *send recommendation information to ISTC.*

3. **ISTC Project #2267**, "Creation of Subcritical Assembly Driven by Proton Accelerator (SAD)": see presentations in **section II.2** and **II.3**.

Actions: *Recommendation to ISTC for continuation of the SAD project with **Phase II** including supporting SAD mock-up experiments at BFS Obninsk, either as part of #2267 or implemented within ISTC Project #2284.*

4. **ISTC Project #2573**, "Investigation of Processes of High-Performance Laser Separation of Lead Isotopes by selective Photoreactions for Development of Environmentally Clean Perspective Power Reactor Facilities", **C. Broeders** mentioned this proposal in his presentation, see **section I.7**. Phase I of the project is successfully finished. SCK-CEN Mol, Belgium, and PSI Würelingen,

Switzerland, have expressed in a supporting document their interest in the technological results (large scale Lead isotopes separation at reasonable costs).

Actions: *Recommendation to ISTC for continuation with **Phase II** of this project if reasonable perspectives for long term large scale production units for Lead isotope separation can be expected.*

5. **ISTC Project #2680, IPPE**, “MATINE- Study of Minor Actinide Transmutation in Nitrides: Modeling and Measurements of Out-of-pile Properties”, see presentation in **section II.4**

Actions: *The CEG recommends strongly the approval of proposed prolongation and encourages cooperation with fuel and irradiation target production by RIAR in Dimitrigrad*

6. **ISTC Project #B-070, JIPNR**, “Experimental and theoretical research of the peculiarities of transmutation of long-lived fission products and minor actinides in a subcritical assembly driven by a neutron generator”. **H. Abderrahim, SCK-CEN**, collaborator, informed about outcome, status and perspectives of the project. It is highly recommended to support extension of the project for two years. SCK-CEN intends to fund half of the sum for this prolongation.

Actions: *The CEG recommends strongly the approval of the proposed prolongation and encourages further cooperation with other international institutions*

7. A summary of the recommendations is given in ([Appendix 16](#)).

Appendix 1

List of participants

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Appendix 2

ISTC-Contact Expert Group on Nuclear Transmutation related Projects

Annual meeting – 2006

Part of the CEG meeting will be also devoted to summary of the Project # 2578: “Transmutation of radioactive nuclear waste – present status and requirement for the problem – oriented nuclear data base. Approach to scheduling the experiments (reactor, target, blanket)”

The meeting will take place in Brussels, January 30 - 31 (Monday, Tuesday) 2005. Beginning: January 30 (Monday) at 10:30. Adjourn January 31 (Tuesday) at 17:00.

Place: **EC, Building CDMA, 21, rue de Champs de Mars, 1050 Brussels**

January 30: Meeting Room SDR4 (Floor: 0)

January 31: Room 03/102 (Floor: 3)

Agenda:

Monday, January 30

- 10:30 – 10:40 Welcome and local arrangements – V. Bhatnagar
- 10:40 – 11:00 Introduction and Annual Report presentation - W. Gudowski
- 11:00 – 12:00 Presentation of the present ISTC policy, interactions with CEG + more – Jürgen Sanders/Barbara Rhode
- 12:00 – 12:30 IAEA activities in transmutation field – Alexander Stanculescu
- 12:30 - 13:00 Experiences from other CEG's, possibilities of closer collaboration – Michel Hugon, Lev Tocheny

13:00 – 14:30 Lunch

- 14:30 - 16:00 General overview of the ISTC projects collaborating with the 6th EU Frame Programme projects. Part I (in particular projects #1606, #2002, #2048, #2680, #3266 + more) Recently approved projects and projects waiting for evaluations/approvals.

Attention for Project #3266: only short information at this time. Special topic on the agenda on Tuesday, Jan. 31.

V. Ignatiev, Y. Titarenko, W. Gudowski, V. Bhatnagar

16:00 – 16:20 Coffee break

Collaborator reports on specific ISTC projects:

- 16:20 -17:40 Status of the SAD (#2267) and Yalina (B70) projects. In particular collaboration and funding issues. Reports from the SAD/YALINA Steering Committee meetings and ECATS meetings. Strategy for other “supporting” projects
C. Broeders, V. Shvetsov, H. Abderrahim, W. Gudowski, E. Gonzalez

17:40 – 18:20 Discussion

18:20 ADJOURN

Evening: dinner together following suggestions of our EC-hosts,

Tuesday, January 31

- 9:00 – 11:00 *Continuation of the CEG main topics*
14:00-17:00 *Review of the Projects #2578 and # 3266; “Kick off” of these projects*
- 9:00 – 9:20 Review and ranking of the projects in the pipeline – W. Gudowski + all
- 9:20 – 11:00** **Working plan for 2006-2007:**
9:20 – 10:00 Broadening of the CEG scope
9:20 – 9:50 Partitioning related projects at RIAR and short overview of Russian Partitioning program – A. Bychkov + L. Tocheny
9:50 – 10:00 Discussion
- 10:00-10:45 *Collaboration between CEG, ISTC office and ISTC Secretariat and Strategy for further integration of the ISTC projects with the European FP projects - V. Bhatnagar, , J. Sanders, L. Tocheny, W. Gudowski*
*Introduction of **W. Gudowski** (5 min.)*
*EU Framework programs and ISTC – seeking a synergy and long term strategy: **V. Bhatnagar** (continuation of our on-going discussion since some time – **25 min.**)*
*ISTC perspective: **J. Sanders** (15 min)*
- 10:45-10:55 *Discussion*
- 10:55-11:05 *Revitalization of the collaboration with USA, Japan and S. Korea – W. Gudowski and all*
- 11:05-11:20** **Coffee break**
- 11:20 -11:40 Action Plan for 2006
- 11:40 -13:00 CEG-Kick-off of the Project # **3266** – **Y. Titarenko, V. Batyaev.**
- 13:00 - 14:00** **Lunch**
- 14:00 – 14:30 Discussion and recommendations for # 3266 – H. Abderrahim
- 14:30 – 16:00 **Summary of the Project # 2578:** “Transmutation of radioactive nuclear waste – present status and requirement for the problem – oriented nuclear data base. Approach to scheduling the experiments (reactor, target, blanket)” - Yu. Korovin
- 16:00-16:20** **Coffee Break**
- 16:20 – 16:40 Discussion on #2578 and recommendations – E. Gonzalez
16:40 – 17:00 Miscellaneous
17:00 **Adjourn**

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Appendix 3

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Contribution of A. Stanculescu

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Contribution of C. Broeders

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Contribution of V. Ignatiev

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Contribution 1 of V. Shvetsov

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Contribution 2 of V. Shvetsov

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Appendix 9

ISTC #2002 contribution of V. Batyaev

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Appendix 10

ISTC #2680 contribution of W. Gudowski

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Appendix 11

Contribution of A. Bychkov

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Appendix 12

ISTC #3266 contribution of V. Batyaev

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Appendix 13

Contribution of Y. Korovin

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Appendix 14

ISTC #2578 contribution of E. Gonzales

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Appendix 15

ISTC#2048 documents of G. Müller

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Appendix 16

Compact summary of recommendations from CEG 2006 meeting Brussels

Project	Status	Short characterization	Recommendations / Comments
1606	Phase II starting	Molten Salt Technology	Synthesis with RIAR activities?
2048	Running	Material properties improvement	Prolongation
2267 SAD	Phase I successfully completed	ADS experimental setup	Fast continuation with Phase II
2573	Phase I successfully completed	Lead isotope separation	Continuation with Phase II
2578	Finished	Summary of Nuclear Data related ISTC Projects	Small modifications of draft final report
2680 MATINE	Running	Minor Actinides and Nitride Fuel	Prolongation
2884 + other	Reformulation as single project	Nuclear data measurements and integral experiments	Focussing on SAD licensing and on NUDATRA support
B070 YALINA	Running	Neutron Source Driven Sub-critical Assembly	Prolongation

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