

**Minutes of the Round Table Meeting of the
Infrastructure Cooperation Network FINUPHY
(Frontiers In Nuclear Physics)
held on April 8-9, 2002
in Lisbon, Portugal**

Participants:

C. Angulo, CRC, Louvain-la-Neuve, Belgium;
J. Aystö, NuPECC, Europe;
S. Bertolucci, LNF, Frascati, Italy;
R. Broda, Univ. of Krakow, Krakow, Poland;
M. De Poli, LNL, Legnaro, Italy;
C. Ekström, TSL, Uppsala, Sweden;
G. Fortuna, LNL, Legnaro, Italy
B. Fulton, Univ. of York, York, UK;
S. Galès, IPN-Orsay, France;
D. Goutte, GANIL, Caen, France;
J.P. Grandin, CIRIL, Caen, France;
K.-D. Gross, GSI, Darmstadt, Germany;
D. Grzonka, FZJ, Jülich, Germany;
C. Guaraldo, LNF, Frascati, Italy;
M.N. Harakeh, KVI, Groningen, The Netherlands;
W. Henning, GSI, Darmstadt, Germany;
G. Huber, Univ. of Mainz, Mainz, Germany;
R. Julin, JYFL, Jyväskylä, Finland;
K. Kilian, FZJ, Jülich, Germany;
G.-E. Körner, NuPECC, Europe;
R. Leonardi, ECT*, Trento, Italy;
D. Müller, GSI, Darmstadt, Germany;
G. Münzenberg, GSI, Darmstadt, Germany;
R. Page, Univ. of Liverpool, Liverpool, UK;
D. Pasini, EC, Brussels
A.R. Ramos, ITN, Lisbon, Portugal;
G. Ryckewaert, CRC, Louvain-la-Neuve, Belgium;
W. Scobel, Univ. of Hamburg, Hamburg, Germany;
M.F. da Silva, ITN, Lisbon, Portugal;
J. Soares, ITN, Lisbon Portugal;
O. Tengblad, CSIC, Madrid, Spain;
A.M. van den Berg, KVI, Groningen, The Netherlands;
P. Van Duppen, KULeuven, Leuven, Belgium;
J. Vervier, Louvain-la-Neuve, Belgium;
W. Weise, ECT*, Trento, Italy;

Apologies were received from:

D. Vernhet, L. Nilsson, K. Riisager (replaced by O. Tengblad); J.P. Vivien

1. Approval of the minutes of the previous Round Table meeting of FINUPHY at Bayeux, France, on October 15-16, 2001

Correction on section 2., page 5, second paragraph:

- i) W. Henning proposes to *consider* the enlargement of the concept...
- ii) Some of the participants have objections against such an enlargement *within the existing FINUPHY*.

Correction on page 6, section 5.1, 9th line and section 5.5, page 6, 1st line:

- i) Harakeh should be changed to *Harakeh*

The minutes were approved without further changes.

2. Information from the European Commission

D. Pasini reports on the EU Sixth Framework Programme (FP6), and in particular on the new Integrated Infrastructure Initiatives (I3) program within FP6. Copies of his transparencies are enclosed as Attach 1.

Deadlines (most probable)

Final decision	Mid-Late 2002
First Call for proposals	End 2002, with deadlines for proposal in the spring of 2003
Start of Contract	End 2003, beginning 2004

Discussion followed:

2. 1 The concept of I3

D. Pasini went again in detail through the main points of his talk. I3 combines networking activities with joint research projects and transnational access to research infrastructures (RI). But no obligation exists on integrating in a I3: transnational access to a RI could be supported independently of a I3.

There is no letter of intent for I3. The EC understands that the program is sufficiently well-known for I3.

The rules of participation and the definition of the internal structure must be negotiated inside the collaboration. Each contract will be signed by only one coordinator representing the entire collaboration.

The need for a Scientific and Technological Council has disappeared in the present version of the documents for I3. The participants exchanged on the necessity to create such a Council for the follow up of the activities of the I3. More discussion on this point came during the working session of the next day (see below).

2. 2 The evaluation of I3 proposals

The evaluation procedure will be similar to that of FP5. D. Pasini emphasized the importance of the interview of the coordinator. The procedure would be, more or less, the following: the proposals will be sent to 5 or 6 recognized experts on the specific field (subcommittees). They will report on the scientific value of the project. About one month later, a meeting with the coordinator and the EC managers will be held. The proposal will then be discussed in detail, including the possible suggestions of modification made by the panel. The proposal should then be consequently adapted.

About 9 months of total evaluation should be considered. Due to the detailed discussions, a better preparation for the negotiation of the contract is expected.

2. 3 The budget of I3 contracts

The total budget is expected to be similar to that of FP5, plus a reasonable inflation. It is unrealistic to think that the budget could be doubled.

The total budget of a I3 is allocated to the entire collaboration. The redistribution of the budget is an internal issue of the collaboration. In principle, there are 265 million E allocated to I3, but this amount is not yet frozen.

The EC does not expect to have all the support allocated at the first call: a second call for I3 will be open later.

2. 4 Definition of "flexibility" within I3

For I3, "flexibility" should be understood in the context of budget, and not in the context of scientific goals. In FP6, the list of eligible cost will disappear. Every year, a report on the way the support has been used must be submitted. In this sense, there is a budget flexibility, but the scientific goal must be established and fixed from the early stages of the project.

3. **Discussion on an Integrated Infrastructure Initiative in Nuclear Structure within the Sixth Framework Programme (FP6)**

The discussion on an I3 in Nuclear Structure was based on a preliminary document, sent in advance by J. Vervier to the members of the FINUPHY Round Table, which included many question marks on which the participants had been advised to think.

3.1 Informations on laboratories inside or outside FINUPHY

S. Bertolucci gave a brief overview of the Laboratori Nazionale di Frascati, whose activities deal with hadronic physics, accelerators and detector physics, with a collaboration with DESY for the development of a free electron laser. It is the intention of the LNF to take part to another I3 in Nuclear Physics than the one presently discussed within FINUPHY.

J. Vervier reported on an e-mail of G. Fortuna (absent during the first working day of the present meeting) concerning the Italian participation to I3 : he proposes that the LNL Legnaro should be a core member, and that the LNS Catania, and the LUNA group at the Gran Sasso should be associated members.

S. Gales proposed the participation of the IPN Orsay in the future I3 initiative. IPNO is formally not a member of FINUPHY, but is collaborating in many research activities with FINUPHY partners. The IPNO equipment will be updated with the 50 MeV injector from LEP, creating a new facility for the production of non-accelerated fission fragments. Copies of his transparencies are enclosed as Attach 3.

J. Vervier mentioned that the Vivitron laboratory at the IreS Strasbourg will be shut down at the end of 2003. It was agreed that the IreS Strasbourg will remain a member of I3, with no transnational access.

3.2 Information on the situation in Eastern European countries and their perspectives in I3

R Broda explained that Eastern countries are presently mainly users of the Western nuclear physics facilities. If the situation remains, he does not foresee a brilliant future for nuclear science in, for example, Poland. As a realistic approach to enter the I3 initiative, he suggests to integrate the two centres in Poland, Krakow and Warsaw, as associated members of I3. This association is based on the many collaborations already established between them and some of the LSF (Legnaro, GSI, Strasbourg, Jülich, ...)

D. Pasini reminded that the EC encourages the participation of Eastern European countries in the I3 initiatives, especially if they are already involved in RTD projects. One could also consider a second level of participation, as representatives of users, which would not necessarily have a role at the beginning of the contract. In order to limit the number of participants, it is suggested to proceed through networking.

J. Soares pointed out that there are also Western European countries, such as Portugal, Spain and Greece, with problems related to the absence of RI. The solution could be to provide access to the LSF, and to train and educate young researchers in small national laboratories, in order to get better integrated with large facilities. Networking activities should be foreseen to provide better integration of these countries.

3.3 Integration of I3

S. Galès and W. Henning noticed that a clear distinction should be made between RI, RTD and users, and that a way should be found to integrate all them into the next I3.

D. Pasini defined again the position of the EC about I3: the goal is to support technology and networking coordination, and to promote infrastructures with the aim to provide scientific results. I3 should be open for new participants, but this must be defined in the Consortium Agreement before the beginning of the contract.

3.4 The role of industrial partners in an I3

In Europe, the relation between Universities and Industries is generally weak. D. Pasini wondered whether Europe is already prepared for a close collaboration between scientific groups and industries. Nevertheless, collaboration with industry is most welcomed by the EC.

M. Harakeh mentioned that collaboration with the industry for electronics devices and high performance computing must be supported, although there are sometimes problems with industrial rules.

3.5 Transnational access to RI

The choice of grouping the different RI into a single network, or into several networks with common research themes (e.g. LIFE, Radioactive Nuclear Beams, Stable Beams, ...) was discussed. M. Harakeh gave a brief description of the running of the LIFE network. The organization of several subnetworks was preferred.

It was agreed that, within I3, each of the participant laboratories should keep their own pattern: no common Program Advisory Committee (PAC), no common deadlines for proposal submission, should be foreseen, leaving flexible options to the users.

On the other hand, the EC expects that the RI explore possibilities of coordinating access, through, for example, a common web site, where all the important information is gathered. A common publicity is desirable in order to harmonise the presentation to the users.

3.6 Research activities : RTD projects

It was suggested that NuPECC will act as a general advisory committee to organise RTD projects, by announcing a call for proposals, and by publicising it in Nuclear Physics News International.

A Scientific & Technological Committee should be soon established, in order to examine the RTD proposals and to propose decisions on priority choice.

D. Pasini observed that one should make a clear distinction between a Network of Excellence and a I3. Also Design Studies are not included in I3. The objective of I3 is to continue the development already started by the previous Framework Programmes, but RTD networks are related directly to the users, although strongly linked to the RI's. He warned to avoid create confusion by a too large announcement.

RTD should be defined in terms of specific objectives, but with sufficient flexibility for distributing the resources. A management board is needed here.

3.7 Budget

A suggestion for a 5-year budget for the proposed I3 in Nuclear Structure is made on the following terms:

15 M€ for Transnational Access (ARI)
20 M€ for Research Activities (RTD)
2 M€ for Cooperation Networks

This proposal seemed reasonable for D. Pasini. He noticed that, if a 4-year contract basis is established, there will be 20% of saved budget, and the EC would be able to promote a larger number of I3's.

3.8 Budget management

Technically, the management of a I3 budget should be done by an entity that is familiar with managing large amounts of financial resources. Several options were discussed for this managing entity :

- i) A first option could be a large university. Such an option would promote the science within the university.
- ii) A second option could be a research infrastructure.
- iii) A third possibility could be to create a new and independent entity within each I3. This option was not supported by the majority of the participants, due to the supplementary effort for the creation of such an international management entity.

It was finally decided that offers should be made, by universities and other large entities, for the budget management of the I3.

3.9 Writing Committee

A Writing Committee should be settled to prepare the First Draft of a I3 proposal, including the rules and the scientific goals of the I3.

The procedure will be the following. The document should be ready by early Summer 2002, and should be put on the website of the FINUPHY network, in order to be accessible to all participants.

Comments and suggestions to the First Draft should be sent to the Writing Committee before the next FINUPHY meeting in October 2002.

Composition of the Writing Committee:

R. Broda – representing the users & Eastern European countries
G. Fortuna – representing a RI (LNL, Legnaro, Italy)
B. Fulton – representing the users
D. Goutte – representing a RI (GANIL, Caen, France)
W. Henning – representing a RI (GSI, Darmstadt, Germany)
J. Vervier – coordinator of the FINUPHY network

Deadlines:

First Draft of the Document	Summer 2002
Comments/Suggestions of the FINUPHY members to the First Draft	Before October 2002
Presentation of the document at the next FINUPHY meeting	End of October 2002

4. **Information on the European Research Infrastructures in Nuclear Physics**

G. Ryckewaert reported on the latest highlights at the CRC, Louvain-la-Neuve. In particular, he showed the complementarity of the CRC facility with other larger laboratories, such as GANIL. The multidisciplinary uses of some radioactive beams, as ^7Be , was also shown. Copies of his transparencies are enclosed as Attach 4

P. Van Duppen reported on the latest achievements and future plans at REX-ISOLDE. In particular, he showed that essentially all ISOLDE beams can be accelerated and that, by laser ionisation, pure beams and isomeric beams can be obtained. Copies of his transparencies are enclosed as Attach 5.

G. Huber reported on the selective ionisation at ISOL facilities by multistep resonance Ionisation with Lasers. Copies of his transparencies are enclosed as Attach 6.

W. Weise reported on the latest ECT* news, mainly the status of Projects in 2002 and the expansion of the infrastructure and computing facilities. Copies of his transparencies are enclosed as Attach 7.

D. Grzonka reported on the activities of COSY in the framework of FP5 and on the proposed activities of COSY in FP6. Copies of his transparencies are enclosed as Attach 8.

5. News from NuPECC

J. Aystö reported on the Basel meeting of NuPECC on March 1-2, 2002, and presented six Working Groups for the Long Range Plan 2002. He also presented the budget of the Mapping Studies. The demand of a supplementary amount of 30 k€ for NuPECC for the budget of Mapping Studies within FINUPHY is accepted. Copies of his transparencies are enclosed as Attach 2.

A meeting will be held in Prague at the end of June 2002 for discussing the results of the Working Groups.

5.1 Needs for a permanent Scientific Council in I3 & role of NuPECC

J. Aystö suggested that NuPECC should be considered as an advisory committee and a contact with the various I3 in Nuclear Physics, through a possible Scientific Council, still to be established.

D. Pasini stated that the EC feels that the scientific guidance should be done during the proposal stage. Some of the participants think that the creation of a Scientific Follow-Up Committee is also necessary during the execution of the program.

W. Henning had doubts on the real need for the establishment of a permanent Scientific Council when an informal advice should always be possible. On the other hand, he pointed out that the role of NuPECC and of an advisory Scientific Council should be clearly separated. NuPECC should not get involved in a particular proposal, but serves as a guidance for long range plans. In a similar direction, B. Fulton stated that NuPECC should provide independent inputs to running projects, not in the management but with a scientific role.

S. Gales suggested that NuPECC could play an active role in the selection of the RTD projects to be carried out within the I3 and in the evolution of the I3 scientific programme.

6. Joint scientific and technological activities within FINUPHY

M. Harakeh presented a brief status report on the project "Photon/dilepton spectrometer development". A workshop on Strangeness Production was held on November 2-3, 2001. He announced a workshop for September 4-5, 2002, as part of the collaboration between the KVI, Groningen and the FZ-Jülich. Copies of his transparencies are enclosed as Attach 9.

B. Fulton reported on a general science view of the future directions and goals of nuclear physics. Copies of his transparencies are enclosed as Attach 10.

G.-E. Körner informed on the new proposal for funding from the EC in the framework of PANS (Public Awareness of Nuclear Science). A book, "NUCLEUS", has recently been edited by NuPECC. Copies of her information are enclosed as Attach 11.

D. Goutte reported on the progresses of the activity on the Interdisciplinary Uses of Nuclear Physics Large Scale Facilities. Most LSF have answered to his questionnaire, and a Handbook on that topics is being prepared. Other follow-up activities, such as actions to improve the access of non nuclear physics users to LSF in Nuclear Physics, are foreseen.

G. Münzenberg reported on the results of a workshop "Recoil Separator for Superheavy element Chemistry" held at GSI on March 20-21, 2002. Copies of his transparencies are enclosed as Attach 12.

R. Julin reported on Instrumentation for RNB facilities, as well as an updated list of RTD projects. Copies of his transparencies are enclosed as Attach 13.

7. Opinion and suggestions from the Users of RI

G. Huber presented the problem of Transnational Access to RI whose support will be stopped for 1 year due to the missing, by the LSF, of the Last Call for proposals on February 2001.

D. Pasini suggested to ask for an extension of the present contract to the EC. This extension would not include extra financial resources, but will allow the facility to use the current resources by supporting visitors without interruption.

R. Broda asked about the problem of the shutdown of the Vivitron facility at Strasbourg. It was pointed out that other existing facilities can provide stable beams.

Miscellaneous

8.1 FINUPHY budget

D. Müller presented the present financial situation in FINUPHY. The FINUPHY budget is far from been exhausted, mainly because some of the projects within the network have not yet been started. Copy of his transparency is enclosed as Attach 14.

8. Date and place of the next FINUPHY Round Table meeting

The next FINUPHY Round Table meeting will be held at the ECT* in Trento, on October 28-29, 2002.