

FP7 Integrating Activities Initiative for the Construction of SPIRAL2 Meeting

M I N U T E S

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| DATE: 09/06/09 | OBJECT: Minutes of the FP7 IAI SPIRAL2 Meeting on 09/06/09 |
| N/REF: SP2PP/GA/2009.01 | LOCATION: Villepinte, France |
| PREPARED BY: K. Turzó | AFFILIATED DOCUMENTS: |

| INSTITUTION | GANIL | CEA | ATOMKI | COPIN | IFIN-HH | INRNE | NPI |
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| PRESENT | S. Galès M. Jacquemet M. Lewitowicz K. Turzó | C. Cavata | Z. Dombradi | J. Styczen A. Maj | V. Zamfir F. Negoita | J. Stamenov D. Balabanski | J. Dobes |
| EXCUSED | | | Z. Fülöp | | | | P. Bem |
| DIFFUSION: | To all the participants | | | | | | |

| N° | TOPIC | SPEAKER |
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| 1 | <p>Welcome</p> <p>Presentation of the participants.</p> | S. Galès |
| 3 | <p>Presentation of the IA Initiative</p> <p>Background:</p> <ul style="list-style-type: none"> • Participation of the new member states in SPIRAL2 PP • Recent discussions with the EC (initiative encouraged by DG Research) • Difficult economical situation, very strong impact on research in the new member states <p>Existing bilateral agreements between GANIL/SPIRAL2 and Poland (LEA COPIGAL), Romania (MoU), Bulgaria(MoU)</p> <p>New FP7 IAI for the construction of SPIRAL2</p> <ul style="list-style-type: none"> • Proposal to the EC to include it in a new call to be launched most probably in 2010. • It is proposed that the EU contribution should be spent as an in-kind contribution without any conditions of additional investment of their own budget. • 1 or 2 preparatory meetings. • Proposal to be presented o the EC before August 2009. <p>Goals of the first meeting</p> <ul style="list-style-type: none"> • Define the most promising technical topics for each partner. • Letters of Intent prepared and signed (in the coming 4-5 weeks) by the representatives of the ministries/funding agencies of the interested countries with a list of topics covered by each partners. • Define the new EU member state representatives to present the initiative in Brussels together with CEA & CNRS directors in July 2009. <p>Possible budget to be expected for the IA Initiative SPIRAL2: several M€, but more than 1M€ per partner</p> | M. Lewitowicz |
| 4 | <p><u>Presentation of SPIRAL2 status: drawing of the phase 1 and phase 2 buildings (see corresponding slides)</u></p> <p><u>Work Packages proposed by the SPIRAL2 project (see also corresponding slides):</u></p> <p>Baseline Project</p> <ul style="list-style-type: none"> • Support of the SC cavities: prototype under construction in Bulgaria delivery by Sept. 2009 : 0.5 M€ • Beam Loss Monitor by Bucharest : 0.2 M€ • Hot cell mechanics (to be inserted into concrete and metal construction) 1-2M€ <ul style="list-style-type: none"> • For any of the above work package, the plans of the machines/constructions could be given to the collaborating institution. <p><u>New SPIRAL2 detectors</u></p> <ul style="list-style-type: none"> • S³ and NFS are the experimental areas of Phase 1. • DESIR is still an option for Phase 2 of the baseline project,. <p><u>S³</u> One of the most urgent work package. Possible collaborations: Design and construction of the 3 identical magnetic dipoles (complete by the beginning of 2012, about 240 k€) Design and construction of the supports and vacuum chamber (complete by the beginning of 2012, supports about 290k€, vacuum chamber about 450k€) Work-package on the cryogenic part of S³ if this solution is chosen. the design of S3 will be fully defined before the end of 2009.</p> | M. Jacquemet & M. Lewitowicz |

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| | <p>NFS This infrastructure could be a very important added value for the treatment of nuclear waste, for nuclear energy, etc: it has an interesting political impact although it is not a large project. The work packages may be chosen from the presented list. Total 0.4 M€</p> <p>DESIR DESIR will receive the beams from the production building, S3 and SPIRAL1: Proposed work packages: 70m of beam lines leading to DESIR (1,9M€) and 100m of beam lines in the DESIR building (2,7M€). Total construction budget (DESIR building fully equipped): 5.75 M€.</p> <p>The presented work packages deal with essential new instruments for the SPIRAL2 project.</p> | |
| <p>5</p> | <p>Work Packages proposed by the EU Partners</p> <p>All new member states represented at the meeting are involved in work packages of SPIRAL2 PP.</p> <p><u>Poland: possible areas of in-kind contributions to SP2 (A. Maj)</u></p> <ul style="list-style-type: none"> • Mechanics for the baseline project: <ul style="list-style-type: none"> ○ Hot cell mechanics – precise of large stainless-steel plates (1-2 M€) ○ Assembling of large mechanical parts (pipes, magnets, ...) ○ AutoCAD design (precise engineering) ○ Individual beam line elements ○ Cooling systems, cryogenics ○ Vacuum systems ○ High power voltage suppliers ○ Electrical circuits • New SP2 detectors <ul style="list-style-type: none"> ○ LaBr3 and CsI(Na) crystals for the PARIS array (mechanics for PARIS may be constructed by Bulgaria) ○ Readout electronics for PARIS (together with Hungary?) ○ Mechanical parts for ACTAR or/and NEDA ○ Readout electronics of GASPARD, EXOGAM2, ACTAR? ○ Liquid scintillator for NEDA – purchase, assembly, tests • Modern electronics <ul style="list-style-type: none"> ○ AGAVA: Krakow VME to AGATA interface (6 k€ per unit) ○ GUI for DAQ (software) ○ FPGA programming ○ FE Electronics for Si position Sensitive Detectors ○ Developments and tests of the Very Large Scale Integrated Circuits (VLSI) ○ Architectures for ASICs <p><u>Bulgaria (D. Balabanski)</u></p> <ul style="list-style-type: none"> • MoU between GANIL and INRNE, BAS • Participation in SPIRAL2 PP • Production of prototypes for LINAC (contract in April 2009): supports for the cryomodels, etc • Participation in the PARIS project (member of the Steering Committee and in various working groups) • LaBr3 tests in ATOMKI • Consortium in Bulgaria already created for the construction phase of SPIRAL2, lead by INRNE (consortium agreement under preparation): institutes, universities, and companies. <p>SPIRAL2 gives opportunity for:</p> <ul style="list-style-type: none"> • Research infrastructure development in Bulgarian institutions • SME can meet the high standards of SP2 • Transfer of know-how and technologies • Visibility of Bulgaria • Contribution of the construction phase and to the scientific programme | <p>Representatives of Bulgaria, Czech Republic, Hungary, Poland, and Rumania</p> |

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| | <p><u>Romania</u> (F. Negoita) Proposal: continuation of the work currently done for SPIRAL2 PP</p> <ul style="list-style-type: none"> • BLM construction (essential system for LINAC, one of the last components to be installed in the tunnel at the end 2011, cost: 200-300 k€) • Realisation of TIS components to produce beams from fusion-evaporation (possible transportation of the Bordeaux test bench to Bucharest) • Contribution to neutron-gamma spectroscopy set-ups (DESIR) • Magnets (ICPE-CA) & pumps (ICSI) • Csl(Tl) testing and packing for FAZIA • Detectors and neutron beam collimators for NFS <p><u>Hungary</u> (Z. Dombradi)</p> <ul style="list-style-type: none"> • Electronics and DAQ for PARIS and EXOGAM2. • Development of detectors for EXOGAM2 • Possible mechanical building on S³ • The potential contribution has to be discussed with Hungarian subcontractors. <p><u>Czech Republic</u> (J. Dobes) NPI: major nuclear physics institution in Czech republic</p> <ul style="list-style-type: none"> • Cyclotron for radiopharmaceutical studies, production of fast neutrons, EURATOM fusion program, ADS studies • Nuclear reactor • TARGISOL project <ul style="list-style-type: none"> • Main contribution in SPIRAL2 PP and main interest: NFS (i.e. converter) • Czech companies could be interested. • Vacuum and mechanical work. | |
| <p>6</p> | <p>Discussion of the IA Initiative Proposal</p> <p><u>Baseline project</u> 2 main parts: hot cell mechanics and assembling of large mechanical parts -> Poland: existing working group for the assembling, possibilities for the hot cell mechanics</p> <p><u>Priorities</u></p> <ul style="list-style-type: none"> • NFS and S³ (due to the timing = use of stable beams with phase 1 of SPIRAL2) • Construction part of SPIRAL2: mechanics of hot cell, support systems, beam lines, magnets, profilers, vacuum systems, etc <p>The IA initiative for the construction of SPIRAL2 could be helpful to push the SPIRAL2 project towards the top of the national priority lists of ESFRI infrastructures.</p> | <p>All</p> |
| <p>7</p> | <p>Drafting of the proposal documents</p> <p><u>Letter of Intent – July 2009</u></p> <p>The Lol will have to show that the country is willing to participate in the construction of ESFRI infrastructure and that it has especially chosen SPIRAL2.</p> <p>A template of Letter of Intent (Lol) will be prepared (before June 12, 2009), divided in several Work Packages (baseline project, instruments). The partners will fill them after contacts with potential scientific and industrial partners and send the document back to GANIL.</p> <p>For S³, NFS and DESIR M. Lewitowicz will prepare details of work packages with H. Savajols and X. Ledoux and B. Blank.</p> <p>It is advised that each member state adopts one large and visible project, with a clear emphasize of the links with the industry, in order to get a significant funding.</p> <p>Every Lol has to be prepared one by one and has to get the blessing of the ministries/</p> | <p>All</p> |

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| | <p>funding agencies. The agreement of the ministries/funding agencies is a strong sign towards the EC.</p> <p>The ministries/funding agencies of each participating country may sign a letter supporting the institution to act in its name and send it to GANIL by middle of July.</p> <p>The representatives of each interested country at the Research Infrastructure Capacity Committee in Brussels have to be contacted for information about the proposal.</p> <p>The representative of the institution and the national representative in Brussels should sign the Lol by middle of July.</p> <p><u>Proposal – 2010</u></p> <p>Although it is not crucial for the Lol under preparation, it will be important to know exactly what will be the cost of each project for the proposal in 2010.</p> | |
| 8 | <p>Agenda of the following actions</p> <ol style="list-style-type: none"> 1. The Lol template will be send before June 12th, 2009. 2. Preparation of the filled Lol: June 24th, 2009. 3. Phone conference: July 3rd, 2009 at 10:00 am. 4. Signatures/Letters from the ministries before July 12th, 2009. <p>Possible meeting with the EC at the end of July: directors of CEA/DSM and CNRS/IN2P3 and 3 representatives of the new member states (J. Stamenov, V. Zamfir, J. Styczen).</p> | All |