Agata/AMBMin/Apr10/final

**Minutes AGATA Management Board**

28-29th April, IPHC Strasbourg, start 2 p.m. Building 27, 2nd floor, salle des colloques

**Present:**

A. Gadea

G. Duchêne

E. Farnea

J. Simpson Project Manager and Secretary

P. Reiter

Ch. Theisen

P.J. Nolan ASC representative

**1. Apologies for absence**

J. Nyberg

**2. Minutes of the last meeting** 17th February 2010, Legnaro, Start 09:00, Agata/AMBMin/Feb10/03D

The draft minutes Agata/ Agata/AMBMin/Feb10/03D were accepted as a correct record of the meeting.

**Action** JS to distribute as Agata/AMBMin/Feb10/final.

**3. Matters arising from the last meeting and actions outstanding from last phone conference**

**Action** JN to update TDR with in-beam results etc.

Ongoing. Application deadline in Sweden in April. May apply for two triple clusters.

**Action** PJN to investigate common account issue.

Ongoing Will take on board at the ASC.

**Action** All to update project definition up to start of GSI phase, 10 triples.

All aspects of project to remain basically as now (with minor improvements as appropriate).

Send to JS by end February.

Ongoing.

**Action** JS to update project definition. Aim to fit requirements to the available resources.

**Action** JS to instigate a sub group on EDAQ developments if no new project manager is in place by the next meeting.

To be discussed under item 6.

Grid team leader/co-ordinator

**Action**: GD to comment on and send comments to JN.

Done.

Staff available at IPHC.

A co-ordinator is still to be appointed.

All agreed that we “AGATA” need access to the data.

**Action** JS to update to take on board these comments if possible!

Done. Discussed at ASC and new version on agenda.

**Action** JS to contact team leaders in electronics (Lazarus, Coleman-Smith, Bellato, Desesquelles, Gerhaeuser) for very brief reports for our meetings and phone conferences, until working group leader situation is resolved.

**Action** JS to inform team leaders of Dino’s position.

Done

**Action** JS to ensure J. Strachan speaks to E. Enrico to arrange a meeting.

Done. VC held between J. Strachan, R. Griffiths, E. Farnea and C. Fanin.

EF gave a brief summary. Still problems with mounting, idea and a further meeting required. Still difficulties in loading the lower positions. There are more problems with the mechanics, to be discussed under item 5.

**4. ASC Report**

Report given by PJN on the ASC meeting 8-9th April 2010, Legnaro.

Spain formally asked to join which was accepted. Details of engagement in discussion.

Project manager.

Data policy.

Publication policy, see item

Operation cost paper accepted.

GSI phase, urgency needed in specification, planning etc.

HJW invited by JS (to check)

Funds for ENSAR for AGATA. W.Korten to find out the status.

W. Korten has funding for double cryostat development.

ACC discussed. ACC first meeting during the inauguration.

There was a remark regarding the institutions involved and named in the inauguration paperwork.

**5. Reports from Working Groups**

1. **Detector module and characterisation**

### AGATA single detectors, deliveries, available detectors

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **AGATA Detector Pool** | | |  | last update: | | 27.04.10 | | |  | | |
|  | **Detector** | **location** | | **Activity** | **Delivery** | | **Report-Date** | | | **Accepted/**  **operational** | | |
|  |  |  |  | | |  |  |  | | | |
|  | A001 | ATC10034 | Legnaro - ATC1 | | | 01.06.06 | 01.08.06 | Ok/ok | | | |
|  | A002 | ATC10036 | Legnaro - ATC3 | | | 01.06.07 | 22.04.08 | | Ok/ok | |
|  | A003 | ATC10035 | Legnaro - ATC2 | | | 06.11.07 | 01.03.08 | | Ok/ok | |
|  | A004 | IKP vault | For ATC5 | | | 01.07.08 |  | | Ok/ok | |
|  | A005 | IKP vault | Legnaro - ATC4 | | | 18.11.08 | 01.02.09 | | Ok/ok | |
|  | A006 | Liverpool | Scanning | | | 28.11.08 | 01.04.09 | | Ok/ok | |
|  | A007 | Canberra | Repair | | | 28.07.09 | 01.09.09 | | No/no | |
|  |  |  |  | | |  |  | |  | |
|  | B001 | Canberra | Legnaro - ATC4 | | | 16.11.09 | 03.11.09 | | Ok/ok | |
|  | B002 | ATC10034 | Legnaro - ATC1 | | | 01.08.06 | 01.11.06 | | Ok/ok | |
|  | B003 | ATC10035 | Legnaro - ATC2 | | | 01.06.07 | 01.08.07 | | Ok/ok | |
|  | B004 | Canberra | Repair | | | 05.06.08 | 10.11.09 | | No/no | |
|  | B005 | ATC10036 | Legnaro - ATC3 | | | 05.03.09 | 01.09.09 | | Ok/ok | |
|  | B006 | Canberra | Repair | | | 16.07.08 | 17.10.08 | | Ok/no | |
|  |  |  |  | | |  |  | |  | |
|  | C001 | TestC3 | Legnaro - ATC4 | | | 01.12.05 | 01.05.06 | | Ok/ok | |
|  | C002 | ATC10034 | Legnaro - ATC1 | | | 01.06.06 | 01.10.06 | | Ok/ok | |
|  | C003 | Canberra | Repair | | | 05.10.09 |  | |  | |
|  | C004 | IKP vault |  | | | 01.09.07 | 21.12.07 | | Ok/no | |
|  | C005 | ATC10035 | Legnaro - ATC2 | | | 11.12.07 | 22.09.08 | | Ok/ok | |
|  | C006 | ATC10036 | Legnaro - ATC3 | | | 30.04.09 | 23.06.09 | | Ok/ok | |
|  | C007 | Saclay | CAT finished | | | 29.12.09 |  | |  | |

***Future deliveries by Canberra announced 14/01/2010:***

*- A007 (new): late January*

*- B006 (repair): early February*

*- A008 (new): mid February*

*- B004 (repair): late February*

*- B007 (new): late March*

***No detector delivered in 2010, to be discussed with Canberra 29. April 2010***

***Ordered and not delivered detectors:***

*Germany, 3 capsules, order in November 08, announced delivery in 2009*

*UK, 3 capsules, order in April 2009, deliveries Sept 2010, November 2010, January 2011*

*Italy, 1 capsule, order in September 2009, delivery18 months late.*

*Italy, 1 capsule, will be ordered in 2010, delivery 18 months later*

*France, 1 capsule, October 2009, delivery in August 2011*

*France, 2 capsule, CEA, order in process*

*Spain will order one capsule (blue).*

### Customer acceptance tests

**Detector A004**: accepted, done at Liverpool, shipped back to Cologne, to be mounted in ATC5.

**Detector C007**: CAT done at CEA. Energy resolution of core and the front segment F1 out of specs at 1.3 MeV, values: core 2.51 keV, segment F1 2.42 keV.

**Detector tests**

**Detector C004**: was shipped to Ankara, detector test repeated in Cologne single cryostat, detector shows leakage current at one segment, not operational

***Available detector types***

A-type:

six detectors are tested and within specs

A007 at Canberra for repair

B-type

four detectors are tested, within specs, used for ATC1-4

no available B-type at the moment, B004 and B006 at Canberra for repair

C-type

four detectors are tested and within specs, used for ATC1-4

C003 failed in ATC4 and test cryostat at IKP, at Canberra for repair

C004 shows leakage current, will be checked in ATC5

C007 slightly out of specs, poor crystal quality

Meeting with Canberra, PJN, PR, GD, JS, AG and J. Eberth

Lingolsheim 2 p.m. Finish 3:30.

Will raise the issues in tables above, summary of issues: Status, deliveries, Delays in physics programme, microphonics, acceptance of detectors slightly out of specification, ordering plan, A’s not a priority if go for double detectors (red), etc.

# **Status of AGATA triple detectors**

**ATC1 @ Legnaro**

Detectors: A001, B002, C002

* Detector in demonstrator frame
* Status April: all core and segment signals ok.

**ATC2 @ Legnaro**

Detectors: A003, B003, C005

* Detector in demonstrator frame
* Status April: all core and 107 segment signals ok. One segment is missing.

**ATC3 @ Legnaro**

Detectors: A002, B005, C006

* Detector in demonstrator frame
* Increased LN2 fill time, warm up, no leak, pumping, remounted in frame
* Status: all core and segment signals ok.

**ATC4 @ Legnaro**

Detectors: A005, B001, C001

* Detector in demonstrator frame
* Status: all core and segment signals ok.

**ATC5:**

Detectors: A004 missing B- and C-type detector

* B004 after repair, B006 after repair
* C007?

Hardware (cryostat vacuum and preamplifiers) tested, mounting of A004 in April 2010

**ATC6:**

Hardware (cryostat and preamplifiers) tested at CTT, delivery and electronic tests at IKP in May 2010

**ATC7:**

Hardware (cryostat, dewar, no preamplifiers) at CTT

**ATC8:**

Hardware (cryostat, dewar, no preamplifiers) at CTT

### 

PR has been in discussion with CTT. Orders can be swapped triple to double.

Germany OK to make this change. Italy has to stick to triples.

### Scanning:

Scan of AGATA detector A006 at Liverpool for scanning, ongoing

**Mechanical modification of two test cryostats for scanning and detector tests**

Electronics and cabling of cold part ordered: ~ 2500€ per single test cryostat will be paid by German AGATA running costs.

Budget in Cologne for running cost need to go up to 20k€ (15k€ spent)

**Accepted article on AGATA cluster detectors:**

Article title: The AGATA triple cluster detector

Journal title: Nuclear Inst. and Methods in Physics Research, A

Accepted manuscript (unedited version) available online: 20-FEB-2010

DOI information: 10.1016/j.nima.2010.02.102

1. **Front end processing**

**Digitizers** (report from P.J. Coleman-Smith):

Legnaro: 12 working with detectors. 2 with faulty Core modules.

One repaired Core module has arrived from the UK.

Orsay : One being used for Pre-processor testing.

Daresbury: 2 Core modules, 4 Segment modules and 3 crates. The modules are all for repair and will be processed with my time spent at the rate of 1 day per fortnight. The crates are being used in the process of repair. They will be shipped with the repaired modules as they become available to make full digitisers. One crate recently returned from Legnaro requires swagelock couplings fitting.

Background work is being carried out to understand the reasons for failure in the digitisers.

**AGATA Pre-processing Team status. 27th April 2010 (report from Ian Lazarus)**

**Hardware production:**

**Carrier cards** (2 per crystal, 6 per ATC)

* 24 cards (4 ATCs) delivered from IPN to LNL
* 1 card in use at IPN as reference
* 3 cards in use at CSNSM (testbench) for mezzanine slow control and VHDL development
* 1 card under test at IPN following replacement of DPRAM by manufacturer
* 4 further cards at IPN designated “out of service” with various faults *(all have had 3 re-work attempts to remount components on PCB[[1]](#footnote-1) and are now no longer repairable because of the risk of damage to pads and surrounding components: one is useable to a limited degree- it has a broken PCI Express power supply but otherwise is OK. Another has 3 out of 4 mezzanine slots working so could be used for testing only, but the last 2 are not useable)*
* 5 pre-production cards in LNL with small problems; 2 probably useable, others need repair
* 1 pre-production card in Padua- needs repair (probably needs main FPGA replacing).
* Total 28 functional cards plus 6 more pre-production cards to be repaired = 34 (5 ATC+4 spare). Possibility of 1 more card from IPN (under test now)

**Mezzanines** (7 per crystal, 21 per ATC)

* 106 working cards produced by CSNSM[[2]](#footnote-2)
* 84 cards delivered to LNL (4 ATCs)
* 1 spare being delivered to LNL
* 21 cards in use at CSNSM (testbench) for mezzanine slow control and VHDL development
* It’s possible that some of the prototype (v2.2) cards might be used as spares if the optical receivers are replaced (they were used in production cards). V2.2 firmware compatibility is under investigation now and a report is due at the next pre-processing VC.
* Total 106 functional cards (5 ATC and 1 spare) without using prototypes.

**Linco** cards (Linco\_v1 = 2 per crystal , 6 per ATC, Linco\_v2 = 1 per crystal, 3 per ATC)

* 22 Linco\_v1 cards in use in LNL
* 1 Linco\_v1 card in use at CSNSM (testbench) for mezzanine slow control and VHDL development
* Prototype Linco\_v2 card in use at LNL (ATC4)
* Further Linco\_v2 cards being manufactured (number unknown- “enough” according to DiB)

**GTS** cards (pre-processing need s1 GTS per crystal, 3 per ATC (Note that additional GTS cards are needed for the GTS trigger tree))

* Enough GTS for 4 ATC’s exist and are in use
* 5th and later ATCs need GTS cards from the current production run due for delivery around end of April so likely to be available (after testing) during May.

**VHDL** work continues in Orsay to add long trace functionality to the mezzanines, to continue integration of the pre-processing slow control and to integrate the Time Over Threshold data transmission code developed by RAL. Carrier card VHDL at LNL is not being updated much now that experiments have started.

**Conclusion**

There is enough electronics now for 4 ATCs and by the end of May there will be enough for 5 ATCs. There will not be enough for 6 ATCs for the reasons explained in the footnotes (re-designation of some segment mezzanines as core mezzanines during production phase and carrier production problems resulting from incorrect component footprint). Consequently extra carrier cards and (segment) mezzanines for 6th ATC and spares should be included in the planning for the next phase of AGATA. I have not been told exact quantities being made in the latest Linco and GTS production runs but I have the impression that there will be “enough” so I assume that this covers 6 ATCs.

**Pulse Shape Analysis and detector characterisation**

Report sent by R. Gernhaeuser.

**Team structure:**

There are several groups and institutes involved in the developments and projects needed for the PSA.

Legnaro/Padova: Refining grid search (RGS), DATA sorting and preprocessing, implementation of PSA, adaptation to Narval, source and beam data,….

Cologne: Detector characterization, source measurements, performance analysis….

Liverpool: Scanning, detector characterization, MGS signal basis….

Munich: PSA with PSO, JASS signal basis, T0….

Orsay: Matrix method, scanning system, event characterization …..

Milano: PSA with RS, experimental signal basis using PSCS

This list is not exhaustive!

**Current status:**

Online version of the PSA code (RGS) is fast enough for the basic tests which had been performed so far. Also first experiments had not been limited by the PSA speed and computing power.

All segments are treated as single interactions. Resolution and performance seem to be still a matter of optimization, as there are still systematic deviations in the hit pattern. It is expected that the currently used signal basis do not perfectly fit to reality.

This was the reason to take extended source measurements during the last weeks.

Some results:

Detector segmentation seems to be different from our expectations (seems to be equal angle and not equal edge). Also the crystal orientation seems to be systematically different to the current simulations. (110 points to corner A).

New preamp. response functions have been derived from internal pulser tests as well as proportional and differential crosstalk. (Most of the workload was taken by Legnaro and Cologne).

**Near future Plan**s:

Deriving crosstalk matrices from source data.

Experimental test of T0 algorithms

Further optimization of signal basis.

Checking online the position resolution event by event using a 22Na Source.

Implementation of new code options (to NARVAL)

Experimental test of T0 algorithms

Event characterization for presorting the data.

And many other things to be done.

1. **Data Acquisition**

Working week at LNL on week 15 with a one day meeting.  
 Minutes of the meeting is a good DAQ WG report: <http://csngwinfo.in2p3.fr/?q=node/219>  
 Other minutes also on the web: <http://csngwinfo.in2p3.fr/?q=node/210>  
  
Done during the working week:

* zabbix : more monitoring. New nice screens (samples for those interested)
* install 2 new Workstation : analysis1 and analysis2
* Disk server 3 installed (but some GPFS problems to be fixed)
* configuration saving OK
* new machines names
* mezzanine Local Slow Control tests
* discussions of a monitoring page summary (I can show a draft if you want)
* many nice discussions with Damiano / Dino / Daniele / Francesco / Michele / Pietro
* two Orsay DAQ guys who were supposed to leave LNL on April 16th left on April 21st because of a volcano in Iceland.

Other items:

* + new ADF features
  + new watcher
  + GRU spectra not used so much. A pity but Dino et al. prefer "local" spectrum format. Need Luc Legeard at LNL.
  + data protection (as required by some users) induces a mess in the DAQ box

Project definition: in progress. Update sent yesterday. Try to add new R&D to keep engineers alive, happy and interested in the project. More generally, it is more and more difficult to keep peoples alive.   
Almost nothing is discussed when I do not organize meetings

Next meetings:  
evo meeting every 3 week. Agree that our meetings are boring. Try to do better in the future.Working week at LNL likely week 27. More Slow control oriented.

Global slow control is in progress but it is late.

Reminder still needs funds for 2 pizza boxes for 5 triple clusters.

1. **Ancillary detectors and ancillary detector integration**

AGAVA. Next firmware test 17-19 May.

Next experiment, DANTE + PRISMA then TRACE + some scintillators from Helena.

Correlation of AGATA plus PRISMA is working.

GTS for GSI, Marco is investigating if this can be done by companies in Germany.

1. **Design and Infrastructure**

**LNL status**

* ATC 3 did not have a leak, problem was it is first to be filled and for some reason that takes longer. Under investigation, probably not an Autofill/PLC/GUI issue. It was good to pump it.
* Coming weeks/months are source and in-beam tests.
* E. Farnea has proposed to test the LV filter boxes after summer! Seems to be difficult to have these tested earlier even if preferred by the Team.
* Alarms stuff ongoing still.

**HV situation**

* Ch. Veyssière and A. Bouty were in Dresden for a HV meeting with ISEG. No other participant from the collaboration. See short report below.
* Ch. Veyssière report:

We (André and GD only...) had a meeting with M. Gleisberg (Iseg director) and Lutz Kuehnert

We presented the HV status: the oscillations, the missing functions and the specification of what we want for the future.

Then we made some tests in their lab. Everything worked perfectly...

They proposed us a 2 step improvement:

Step 1)

They would produce 4 new modules having the same interface with the André's PCB so no change needed for André. These new modules would be integrated with 4 major modifications:

modification of their inner filter (there is already 3 RC filters at the HV output) to avoid having another filter outside the DC/DC. This filter would have to be specified with them.

no more HV connector on the DC/DC but a coax cable. A connector will be mounted at the end of the cable. The best would be a SHV or a HV BNC but this supposes that the connector on the detector and the way to connect it will change. Keeping the present connector doesn't appear as the best solution. What was clear for everyone at the meeting is that a good HV connection is mandatory.

- they would add a filter at the LV input

- they would add an inner load so that the PWM works with larger current (to prevent oscillations)

Step 2)

They propose more complete modifications. The goal would be also to keep André's PCB but if they integrate the start/stop function a new command (hence a new pin) will be required.

The first step could be done within 8 to 10 weeks.

For the second one, they should be able to quote the study and the production of around 200 pieces (it doesn't mean the first step is free...) within 2 weeks.

This meeting has two basic consequences:

* Ivan's developments on the HV filter in the box will be of no use as ISEG proposes to integrate an additional HV filter
* with the agreement of the Detector group and CTT, the triple cluster cryostat will have to be modified in order to implement an SHV or HV BNC connector rather than the existing feedthrough.

**Cologne Status**

* One symmetric capsule is mounted in a test cryostat.
* ATC 5 will be used for grounding evaluation using dummy capsules.
* LV filter being checked in Köln workshop.

**GSI Status – Autofill, VCC, GUI**

* T. Habermann is happyish with the GUI
* I. Kojouharov not available for the VC.
* GSI contribution still not completed.

**Saclay status**

A first draft of the LV manual has been written by A. Lotode. To be circulated widely in the second version.

**Grounding**

* MDR cables: N. Karkour has found large sleeves that could fit for a full triple cluster (21 cables in a shoot). Following his estimate, their use would add only about 2 mm in diameter per triple cluster.

If the analysis of the first experiments do not show problems due to EMC and if the installation of the sleeves at LNL is too complicated, this solution could be implemented in the GSI phase.

EF comments of some constraints of these suggestions, rigidity of cables, space limitations. Also noted that no improvement made so far in performance by cable changes. Changes and more improvements are more appropriate for GSI phase.

Need feedback on the analysis of the first experiment.

**Action** JS to contact Adam for status.

* New cables: N. Karkour has also explored the production of a new cable to replace the present MDR one. AXON Co has made a preliminary study for a cable with 90 dB for frequencies up to 200 MHz, connectors included, well beyond the specifications. Several pieces could be provided for prototyping (~4 k€). An offer of 20-30 k€ for a series production for about the full demonstrator (~2 km) is done. This is about 700€/cable. Another company has made a higher offer. GD has proposed to request an offer for the full 1/3 phase.
* ATC 5 is being modified for grounding qualification. Dummies to replace the capsules. The new preamplifier mother boards are to be mounted as well as the new Fischer connectors on the preamplifiers. The tests will be performed with N. Karkour. Date to be defined around mid-May.
* Discussions at Rossendorf with ISEG on April 26-27 to improve overall functioning of the ISEG HV module and the associated grounding.

**Project definition for infrastructure of 10 TCs**

To be completed in the coming weeks with ISEG offers.

1. **Gamma-ray tracking, simulations and data analysis**

1. Tracking

No updates received from the team leader.

2. Simulation

The AGATA simulations paper by E. Farnea, D. Bazzacco et al. has been published in NIMA. Can be downloaded from here: doi:10.1016/j.nima.2010.04.043

3. Data bases

No updates received from the team leader.

4. Data analysis

No updates received from the team leader.

5. Grid

Email received from Johan.

*“O. Stezowski has received a very positive answer from CCIN2P3 at Lyon regarding the use of the Lyon Tier-1 by AGATA. Here is a copy of the mail from Olivier sent to JN on 13 April 2010:*

*Dear Johan,*

*I've just finished my first face to face meeting with people from CCIN2P3. As an IN2P3 experiment, there is no restriction to use the CC as TIER1.*

*Concerning the cost, it depends on what is required and thus the grid model we will have. If we are using the CC just as a TIER1 for backup and transfers of data from Legnaro and to other sites (like in my lab) then in this case, tapes, considering the amount of data expected (~100TB), cost nothing for the collaboration : it goes in the missions of the CC. Some disk could also be available but then it could depend on the amount required ... but from what I know it is not that much, and needed only if we are really using the CC to process the data. In such a case, discussions at higher level are required to determine the real computing time given for the agata vo. The CC can also host specific grid services (software part).*

*I will try to get some more information from Pietro and Michele (others?) concerning technical aspects in order to define a little bit more what grid model we would like.*

*Regards*

*Olivier*

*JN has asked Olivier to contact the LNL group including G. Maron regarding the technical aspects of starting to use the Lyon Tier-1 as a second AGATA Grid archive.*

*G. Duchene informed that the laboratory director D. Huss of IPHC, Strasbourg, has approved that two persona from IPHC can be involved in the grid coordination task. The persons are Yannick Patois and Jerome Pansanel, Each of which will contribute with about 10% of his time to the AGATA grid coordination task. JN will organize an AGATA Grid video conference as soon as possible to discuss how to proceed with the AGATA Grid coordination.*

*M. Kaci, F. Recchia et al. have written a conference contribution for the IBERGRID'2010 conference regarding tests of AGATA PSA on the Grid. The conference contribution is attached to this report”*

1. **Status of installation at Legnaro**

ATC3 investigated after the inauguration.

Found that filling in long filling times could be associated with a position on the Autofill system.

Useful work on investigation of crystals took place.

Fixed range of core preamps on ATC3 and ATC4.

AXIS modules (2 48 modules, 3 12 V, 3 -6 and -12V) returned to LNL. Faults caused by earthing problems.

Beam schedule to 1/8 now fixed. All approved experiments scheduled. Busy time ahead.

Just the remaining time to Leske to schedule.

Helena modules are in place.

252Cf run to take place very soon (maybe tomorrow). Source arrived but still has to pass some bureaucracy.

Mechanics. Still need some final adjustment in the alignment of the detectors when inserted in the array. The final positioning needs more control.

Need a discussion of the whole mounting procedure.

**Action**: JS Feedback this information to J. Strachan.

Done J. Strachan will contact EN.

**6. AMB Organisation**

Project manager. ASC (PJN) has distributed a “job description” to AMB and all team leaders. The job should/could be time limited. Maybe a deputy. The organisation of AMB to be discussed with ASC and project manager candidates.

**Action** PJN to contact suggested candidates and volunteers. PJN is to report back to the ASC by end of May.

Comments and thoughts (part): Current organisation has been very successful. Maybe merging of WP’s. Someone to look into the future technical developments? An Engineer? Someone to ensure Quality control? Stable documented systems required? Have to have a mix of maintenance and development. Philosophy of how nuclear physics project are organised. Need for a clear specification, firm project organisation and control. Do we need an Oversight committee? Advice from external people?

**7. AGATA project definition and plans for the next phase.**

* 1. Electronics and DAQ for GSI

Status of digitizers. UK tender exercise complete. Current have order for 3 digitizers can possible order 8 with the available funding in the UK (possible only 7 available). So we will have a total of 29 (28) available. Since the future of the UK’s involvement is not clear this will be a once only production. The timescale for decision is short (this week) since the order has to be placed.

Status of pre-processing. Agreed that a meeting of the parties needed to discuss the production of the pre-processing electronics for the GSI phase.

Need a action plan that is urgent.

Agreed that a face to face meeting is required.

Purpose of the meeting (one day).

To discuss the operation of the group

To discuss the production of the pre-processing electronics for GSI (30 systems).

Who to invite DB, MB, NK, IL, (IPNO), AMB.

**Action** JS to email proposed email to AMB.

**Action** JS to email to invitees over weekend or very early next week.

Propose the location to be Milan early in week of 24th May.

AG to chair the meeting.

**Action** JS to speak to Franco/Benedicte tomorrow.

(Done and its OK)

Prior to this meeting

**Action** AG and EF speak to MB, DB

**Action** CT to speak to NK and (IPNO)

**Action** JS to speak to IL

AMB agreed that R&D for future developments is needed but not to be a specific items at this meeting.

* 1. Design and set-up at GSI

Meeting to take place tomorrow at GSI. Aims of the meeting:

To discuss the simulations of AGATA performance

To discuss and agree the AGATA configuration of detectors including double cryostats

To discuss other detectors including LYCCA, Hector, LH2 target, plunger, etc. and agree overall scheme(s)

To discuss the target chamber and associated infrastructure

To discuss and agree the overall timescale

To discuss and agree responsibilities and funding

Project definition.

**Action** JS to update will all information. To produce a total costing.

**Action** all investigate available funds in each country.

(Italy ~420k including tax 20%), 1 capsule, 140k€ for electronics (40k€ trigger, 90k€ for electronics, 10k for 1ATCA crate).

**Action** GD, EF, JS, CT to have an initial attempt to allocate funds to items.

**Action** JS to contact W. Merczynski regarding transfer and spending of the Polish capital money.

Future funding, new information. Germany, Italy and France see previous meetings.

Sweden bidding now for 2 complete systems.

UK OK to end 2011, following that not clear.

Spain bidding now, approval next year, spend in following year.

**8. Running costs**

Paper submitted to ASC was accepted.

Poland sent a contribution.

The instructions regarding transfers have changed, see recent email.

Cologne need an additional 5k€ this year.

**Action** JS to update the 2010 budget and re-circulate.

**9. Next AGATA Week**

Lyon was offered as a host. October / November. Need to fix a date with Nadine.

**Action**: JS to say yes to Nadine for the offer and suggest either week of 25th October, 22nd November or 29th November. 3 day meeting (Tuesday to Thursday).

**10. AGATA data policy**

AMB agreed with the latest document.

**Action**: JS to submit this to the ACC for discussion next week.

Publications policy. Summary of discussion at ASC. Views from AMB to P.J. Nolan directly.

**11. AOB**

Gretina workshop.

PR maybe a volunteer.

JS to resend details.

Marco Bellato has requested the AMB a resolution of the electronics problem. Padova have decided not to proceed with trigger development until situation is resolved.

**12. Date and location of next meeting and dates of phone conferences.**

30thJune – 1st July GSI

**Phone conferences** / Lyon system (GD to organise)

12th May 10:15 CET

26th May 10:15 CET

16th June 15:30 CET

1. The PCB somehow has a slightly incorrect footprint for one of the power supply components which means that it’s very difficult to fit it in the right place- at the start of production the people responsible for the PCB insisted that there was not time to correct this fault- so the although the production phase started sooner as a result of this, it has been much longer than expected and ultimately has not delivered the full complement of cards (28 or 29 instead of 33) because of the need for multiple re-works which have not always been successful. [↑](#footnote-ref-1)
2. The mezzanines were originally called Segment mezzanines with a separate card designed to be a Core mezzanine. The development of the Core mezzanine was halted while the Segment mezzanines were being manufactured and all the spare segment mezzanines have been re-assigned to be used in the place of core mezzanines. Hence there is only 1 spare for 5 ATCs [↑](#footnote-ref-2)