Agata/AMBMin/June10/final

**Minutes AGATA Management Board**

30th June – 1st July 2010, GSI, start 2 p.m. C26 1.014

**Present:**

A. Gadea

G. Duchêne

E. Farnea Legnaro local project manager

J. Simpson Project Manager and Secretary

P. Reiter

J. Nyberg

P.J. Nolan ASC representative

H-J. Wollersheim GSI local project manager (1/7/10)

**1. Apologies for absence**

Ch. Theisen

**2. Minutes of the last meeting** 28-29th April 2010, Agata/AMBMin/Apr10/02D

The draft minutes Agata/ Agata/AMBMin/Apr10/02D were accepted as a correct record of the meeting.

**Action** JS to distribute as Agata/AMBMin/Apr10/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.

Need to decide to do this or not.

Raise this at next AMB.

J. Simpson and J. Nyberg to investigate the putting together a NIM paper.

The TDR with all authors added and updated to be published as a laboratory report.

Application deadline in Sweden was in April. Application submitted. Two triple systems requested.

News in November time.

**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. To produce a total costing.

Ongoing

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

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

Ongoing

AGATA data policy

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

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

Done, sent to ACC, awaiting replies.

**Action** JS to contact Bo.

Done awaiting any feedback from ACC.

If no comments will assume acceptance and issue the policy.

AMB agreed that this should be issued. JS contact ASC. Done agreed will be distributed.

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

Ongoing

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

Done awaiting reply.

EF says that transfer to Italy is problematic. His suggestion to buy in Poland.

GSI may also have problems.

WM says needs to transfer money. Purchasing in Poland and transferring overseas in problematic.

Need to investigate again the transfer of funds outside Poland.

Done. Procedure specified by Enrico to Witek**.**

6.5k€ for 3 years.

Enrico still chasing paper but it is underway. Expect the funds to be received in October/November.

Agreed to use this money to buy the missing pizza boxes.

**Action** EF to set this in motion.

**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).

Done, awaiting reply.

Nadine has been in contact with GD.

Reply from Nadine suggests week of 22 November.

**4. ASC Report**

ASC not met since the last AMB.

PJN reported that AGATA will be one of the headline projects in the recommendations in the NuPECC 2010 10 year long range plan.

Next meeting will be in October 2010 in Orsay.

**5. AMB organisation**

New PM expected soon. Organisation to follow.

**6. Reports from Working Groups**

1. **Detector module and characterisation**

### AGATA single detectors, deliveries, available detectors

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **AGATA Detector Pool** |  | last update: | 29.06.10 |  |
|  | **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 | IKP - ATC5 | 01.07.08 |  | Ok/ok |
|  | A005 | ATC10036 | 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 |
|  | A008 | Canberra | Final test 1.07.10 |  |  |  |
|  |  |  |  |  |  |  |
|  | B001 | ATC10036  | 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 |
|  | 4 x B | Canberra | Tests July 2010 |  |  |  |
|  |  |  |  |  |  |  |
|  | C001 | ATC10036 | Legnaro - ATC4 | 01.12.05 | 01.05.06 | Ok/ok |
|  | C002 | ATC10034 | Legnaro - ATC1 | 01.06.06 | 01.10.06 | Ok/ok |
|  | C003 | Canberra | Final test 24.6.10 | 05.10.09 |  | Ok/no |
|  | C004 | IKP vault | Leakage current | 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 | IKP – ATC5 | 29.12.09 |  | Ok/ok |

***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*

***Future deliveries by Canberra announced 29/04/2010:***

**

*Date: Tue, 8 Jun 2010 18:05:05 +0200*

*From: "PIRARD Benoit (CANBERRA)" <benoit.pirard@canberra.com>*

*To: Peter Reiter <preiter@ikp.uni-koeln.de>*

*Cc: "Lampert Marie\_Odile (CANBERRA)" <molampert@canberra.com>, "Quirin Pascal (CANBERRA Lingolsheim France)" <pquirin@canberra.com>*

*Subject: RE : AGATA Detectors delivery schedule*

*Dear Prof. Reiter,*

*We still plan to deliver 3 detectors by the end of June:*

*- B006 (reparation) that will be measured on 15th-16th of June. Provided that the final measurements are good, we will be able to deliver it by the 21st of June.*

*- C003 (reparation) and A008 (new) are planned for deliveries in the very last week of June.*

*For July, we plan to deliver B004 (reparation), A007 and another new B detector.*

*Best regards,*

*Benoit*

*From benoit.pirard@canberra.com Wed Jun 16 11:53:57 2010*

*Date: Wed, 16 Jun 2010 11:53:44 +0200*

*From: "PIRARD Benoit (CANBERRA)" <benoit.pirard@canberra.com>*

*To: bart bruyneel <bart.bruyneel@ikp.uni-koeln.de>*

*Cc: Peter Reiter <preiter@ikp.uni-koeln.de>, "Lampert Marie\_Odile (CANBERRA)" <molampert@canberra.com>, "Quirin Pascal (CANBERRA Lingolsheim France)" <pquirin@canberra.com>*

*Subject: RE: status detectors*

*Dear Bart,*

*I am sorry to inform you that detector B006 does not work correctly in the final tests we have being performed yesterday and today. We have to rework it.*

*Next detectors planned for delivery are C003 (final test around the 24th of June) and probably A008 (final test planned around the 1st or 2nd of July) and four B type detectors (earlier final test planned around the 7-8th of July)?*

*Best regards,*

*Benoit*

*Dr. Benoît PIRARD*

*Physicist & Project Manager - Specialty Germanium Detectors*

*Canberra France - Lingolsheim facility*

*Phone: +33 (0)3 88 77 49 80*

*Email: benoit.pirard@canberra.com*

***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, delivery 2010*

*Italy, 1 capsule, ordered in spring 2010, delivery spring 2011*

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

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

*Spain 1 C capsule being ordered. Spain also ordering a test cryostat.*

### Customer acceptance tests

No detectors delivered since last AMB.

***Available detector types***

A-type:

- six detectors are tested and within specs, used for ATC1-5, one for scanning

- 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

- five detectors are tested and within specs, used for ATC1-5

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

- C004 shows leakage current, to be picked up by Canberra

# **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. Repair in September 2010

**ATC3 @ Legnaro**

Detectors: A002, B005, C006

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

**ATC4 @ Legnaro**

Detectors: A005, B001, C001

* Detector in demonstrator frame
* Status: after warm up and repair work in May 2010, all core and 106 segment signals ok, one segment missing, one segment with poor energy resolution, repair in September 2010

**ATC5:**

Detectors: A004, C007, missing B-type

**ATC6:**

Ongoing cryostat and preamplifiers tests at IKP.

**ATC7:**

Hardware (cryostat, dewar, no preamplifiers) at CTT.

**ATC8:**

Hardware (cryostat, dewar, no preamplifiers) at CTT.

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

* first test cryostat operational, tested with symmetric detector S003 at IKP, HV-dependent worsening of energy resolution in C6 and core. (leakage current? - to be further investigated?)
* core energy resolution

ΔE = 1.97 keV at 59.6 keV

ΔE = 2.84 keV at 1173.2 keV

ΔE = 3.01 keV at 1332.5 keV

* second test cryostat assembled, to be tested with symmetric detector S002 at IKP

The AMB remarked on how well the system was working with 4 ATC’s, even at high singles rates.

More tests are being performed today and tomorrow etc. measuring rates, resolutions etc.

GD reported a system (ADONIS) at Ganil is running at very high rates (250kHz).

PR noted that one detector was in GSI for the rate tests as part of prespec. Run now cancelled.

Agreed that the cryostat needed for maintenance and testing of detector in Cologne.

GD reported that the recent IN2P3 order “red” will be “green”.

Double cryostats

Wolfram order an end cap.

Cologne willing to convert an ATC to a double.

Liverpool to order a double.

Wolfram will order remaining parts of a double.

Missing one double end cap. This now agreed, covered by GSI (15k€).

Where to get the additional two? Sweden, France (IN2P3, CEA), ??

### Scanning:

Scan of AGATA detector A006 at Liverpool, ongoing

1. **Front end processing**

See notes in last phone conference. These are relatively up to date.

Discussion of the Milano meeting on pre-processing.

JS summarised the meeting.

AMB to keep all papers confidential.

The limit of Legnaro system is 5 triple clusters. This was a timescale issue of delivery of new carriers and mezzanines.

Actions from this meeting:

JS to write to Marco and Padova group. Done. Letter sent to AMB for information.

Nabil to write to Padova team. Ongoing.

AG to arrange a wider electronics meeting to discuss future developments. Doodle poll in progress.

AMB to discuss the version 0/version 1 firmware.

AG summarised this last point: Upgrade include better slow control, run control, temperature control. Is it possible to find a compromise? Test of version 1. How much support can CSNSM give? Can we go back to version 0? etc. The issues are as summarised in the notes made of the meeting.

Can ENSAR money be used to help support? Do a long commissioning in the next 3 months.

EF really nervous of changing a working system. Onsite support very important.

There will be no beam in Legnaro until end of October. So there is a period to do this one months commissioning.

Agreed:

Need a person available 24/7 supporting the AGATA EDAQ system, both at Legnaro and GSI.

Strong recommendation to use ENSAR money for this. (Note also need travel money to support detector maintenance and commissioning.)

JS to contact Wolfram Korten.

Agreed that the commissioning to go ahead within the next 3 month, for about a month. Until support is fully covered option to go back to version 0 should be available and fast.

1. **Data acquisition**

Summary of the DAQ status received from Christophe.

Comments made in the email were discussed at the meeting and are not included in the minutes.

A very short summary of DAQ could be « it works well ». This is indeed the report of my colleagues from Saclay after week 24 experiment. DAQ was stable (with however known problems that are in our to do list) and they were happy with DAQ (and with AGATA more generally).

“DAQ works” explains at least partially why the DAQ WG is not so active: no complain from users, no requirement, and little feedback.

We have however some ongoing actions:

* Global Electronics Control. Good progress made recently by the Orsay team. Attempt to implement a first version next week at Legnaro (this will not break anything: just a layer on top of LSC’s). Also meeting next week to discuss integration of LSCs with GEC (Marco and Damiano should attend as well). Note also that a guy from Grenoble should work on the GEC GUI.
* Actions to provide an experiment screen summary and more generally experiment monitoring
* Actions to improve the reliability of the system
* Improve documentation
* Detailed list of actions on our WG minutes.

I should also discuss next week the Project Definition with the Italian team. It would be nice to have feedback from the AMB on the already existing part. I think we suggested nice ideas and developments; for instance Data Analysis or use of new processors like GPU’s. For sure having no feedback does not help to motivate the WG.

I reported recently a problem with disk space. Today (2010 06 29), the disk is 96 % full (91.5 Tb / 96). Dino and Francesco are trying to reduce the size compressing the traces (less bits used). This should be however carefully tested before implementation. Another problem is that Pietro needs temporary space before sending the data to the Tier1. This is not the case now and Pietro can therefore not sent data to Bologna. The data storage problem should be solved asap. One can add disks if needed (cost is still about 1 k€/Tb). The collaboration has to decide whether we should throw away the data or add more space for the (nice) data we collected.

Strong request again for 2 pizza boxes for the 5th ATC, 5-6 k€.

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

AGAVA working well with Prisma, Milano using Narval.

Data being analysed “online”.

Components now available to finish all the missing AGAVA cards (for Ganil, GSI).

NEDA for example will be fully compatible.

1. **Design and Infrastructure**

Last VC on June 16th, so infrastructure notes from AMB phone conference are the latest status.

Maintenance period in September requested (LV module tests, LN2 level, PLC algorithm changed, autofill system-with alarms). VCC crate working. Maybe available for LNL in September!

EF remarks that alternative system with alarms being developed.

Future support from Saclay is an issue.

**Action** GD to contact Christian and stress that this is urgent.

Issue of HV boxes from Saclay. May have to go back to back up solution.

**Action** GD to check the progress of this project.

Saclay group have made comments of how the project is managed, having concerns on proper specifications, timescale etc.

The system must be reliable.

Grounding. Nabil and Michel made a visit to Cologne. Report has been produced on the triple cluster, a few small modifications recommended.

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

**Tracking team**
Have recently learned where to download a recent 60Co calibration dataset. This will be used for tuning the online tracking algorithms.

**Data analysis team**. Next EVO meeting 2010-07-06 09:30 CEST.

**Grid.**

Next VC 2010-07-02 10:00 CEST (using Lyon VC system) O. Stezowski has written a first draft of a document called "AGATA Grid Proposition". Will be discussed at the next VC.

Two new people from Strasbourg starting to work on GRID for AGATA.

We have one TIER 1 site, Bologna. EF has agreed some items (tapes/discs) for GRID, 20k€. 6k€ / year for tapes required. Maybe need more. To be paid from running costs.

Note still storing waveforms.

Note to analyse if this usage can be continued to be supported by running costs or to investigate if tapes have to be provided by other means (individual experiment collaborations to fund?).

Transfer to Bologna. Issue with local disc space. Have to have disc space in Legnaro to enable files to be transferred in sizable chunks.

Dino and Francesco working on a compression programme (throwing away zeros).

TIER 1 site at Lyon. This is now available. 100 TB available per year.

Data analysis on the GRID. Will be discussed on Friday. O. Stezowski written a document on how to use the grid in the future.

A general grid course is arranged in Valencia. Some AGATA attendance and interest.

1. **Status at Legnaro**

Most issues covered in the rest of the meeting.

Two differential plunger experiments have run, 4 triple clusters.

Solving issues with AGATA plus PRISMA data analysis. Looking promising.

Also making progress for the online spectra.

87 days of beams proposed for AGATA for next semester. Beam time will start in late October.

Maybe get ~40 days. Maximum usage of AGATA is 50% otherwise staff too overworked!

Need to discuss with beamtime scheduler to group experiments of the same type together.

Plunger experiments will most likely be in January. To be confirmed.

Question regarding Xe beams. 1.2 GeV is the limit.

EFis checking if cooling water is available in August, during the laboratory closure. If not this will effect the electronics.

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

 Ongoing, need to put this together urgently.

1. GSI Phase

Design and infrastructure meeting taking place today.

HJW needs to specify in detail when AGATA will arrive, what is required and what is the budget?

JS summarise the official timescale status.

HJW states that will need to make the budget request 2011 in the autumn this year.

Detailed plan required.

Many things needed to be done in advance.

Agreed that we need this plan in September.

The GSI team, for example Ivan, Stefan, Nick, Henning, Cesar, Blauman (for infrastructure).

Plus students for analysis.

FRS people are working on FRS detectors.

FRS team is headed by Magda Gorska.

There is a need for a mechanical engineer.

EF remarks that need to look at space requirements as soon as possible.

HJW space is an issue.

Use of AGATA at TASCA? HJW said this has not been discussed in any detail within GSI.

**8. Running costs**

Transportation costs to be included in the plan for the moving of AGATA from Legnaro to GSI.

 ASC will require a budget for 2011 at its meeting in October.

 **Action** JS to send HJW running costs papers.

**9. Next AGATA Week**

Week of 22nd November.

AG had a request from Ganil to have a physics meeting (one day) on AGATA+EXOGAM2 at Ganil attached to this meeting. LoI’s are required in December (phase 2 day 1).

First session of performance and achievements.

Session on GSI needed.

**Action** JS to email Nadine.

**10. AGATA data policy**

See action list. Agreed that this is issued.

**11. AOB**

 Bulgaria is now applying for funds.

 Talks at conferences.

AG where?

DB Berkeley.

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

28-29th September 2010, Cologne, lunchtime to lunchtime.

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

 15th July 2010 10:15 CET

 29th July 2010 10:15 CET

 8th September 2010 10:15 CET