FTK-IAPP *Executive Board* Meeting Pisa with Skype connection, June 27 - 2013 **MINUTES**

The following representatives have been invited to the EB:

Mauro Dell'Orso – UNIPI, Project Coordinator, Chair Kostas Kordas – AUTH, WP 7 Coordinator, Member Dimitrios Sampsonidis – AUTH, WP 8 Coordinator, Member Paola Garosi – CAEN, WP 2 Coordinator, Member Francesco Crescioli – CNRS, WP 6 Coordinator, Member Andreas Sakellariou – PRIELE, WP 1 Coordinator, Member Marco Piendibene – UNIPI, WP 5 Coordinator, Member Chiara Roda – UNIPI, WP 4 Coordinator, Member The WP 3 Coordinator is still to be designated.

present in Pisa
present in Pisa
connected by skype from AUTH
present in Pisa
connected by skype from LPNHE
connected by skype from Prisma (Athens)
present in Pisa
present in Pisa
absent

Betty Magnin from CERN (Leader of WP3) has been invited again to become member of the EB. She said she is interested to the position but she need to consult her supervisor.

We accept to wait since the WP3 "commissioning" is not active yet.

Other Participants:

C. Gentsos (on skype), C.L. Sotiropoulou (in Pisa) – AUTH A. lovene (in Pisa) – CAEN R. Cipriani, S. Citraro, S. Donati, P. Luciano (in Pisa) – UNIPI The scheduled presentations are available at the site

http://agenda.infn.it/conferenceDisplay.py?confld=5754

Presentation by Mauro Dell'orso.

- (1) M. Dell'Orso describes important management occasions to make decisions on the future dates. From ANNEX 1:
 - The GA will meet twice per year (M5 & M11 of each year) to deal with administrative issues of the project.
 - The EB will meet regularly every four months (M3, M7, M11 of each year) to assess the progress in the research and training aspects

The EB and the GA have met for the first time during the kick-off workshop in Pisa (M2). The assembly decides that after the actual EB meeting (M5), **both the GA and EB will meet again at the beginning of December (M11)** to prepare all the reports of the first year of work.

- (2) M. Dell'Orso describes the administrative problems solved in these first 5 month of the project (see slides) and he lists all the already concluded and ongoing secondments. The activity has been performed as planned in the Gantt Chart of Annex 1 with the corrections approved by the PO.
 - (a) Calliope-Louisa Sotiropoulou (AUTH): 4 months April July @ CAEN approved by PO task: clustering in the pixel modules (FPGA firmware)
 - (b) Andreas Sakellariou (PRISMA): 2 months April-May @ UNIPI as originally planned task: Cadence design of AMBSLP board
 - (c) Kostas Kordas (AUTH): 2 months 13 May-13 July @ CAEN as originally planned task: VS infractructure setup AMBFTK tests web site creation
 - (d) Dimas Dimitrios (PRISMA): 2 months June-July @ UNIPI as originally planned task: diagnostic firmware for the AMBFTK and AMBSLP

Important informations for the seconded people:

You can choose to pay social security in your country (module A1 necessary)
You can pay taxes in your country: document certifying you are paying there is needed

- (3) M. Dell'Orso describes the future secondments already established for Summer:
 - a) Francesco Crescioli (LPNHE): 2 months @ CAEN 22 July 11 August ; break; 26 August-6 October task: FPGA firmware/software for AMBSLP
 - b) Giovanni Calderini (LPNHE): 2 months @ CAEN 29 July 11 August ; break; 26 August-13 October task: Test bench for silicon detector R&D

CAEN is closed between August 12 and August 25. If > 1 week → BREAK

c) Marco Piendibene (UNIPI): 2 months @ PRIELE

July 26 – August 25 (Athens); task: FPGA firmware/software for AMBSLP August 26- September 25 (Alexandroupolis); task: test stand installation/tests of AMBSLP

d) Simone Donati (UNIPI): 2 months @ PRIELE

July 12–August 25 (Athens); task: software for AMBSLP tests

August 26- September 11 (Alexandroupolis); task: test stand installation/tests of AMBSLP

- 4) M. Dell'Orso describes the plans for the future secondments in the autumn
 - 1. C. Gentsos (AUTH): 4months @ PRIELE August 25 December 24; task: tests AMBSLP and TF-DO firmware

this was the plan in July but after he has been approved by PO to come to CAEN for 3 months

- C. Gentsos (AUTH): 3 months @ PRIELE September 8 December 8, taking Ourania 2014 months; task: TF-DO firmware to favour his PHD thesis
- L. Sotiropoulou (AUTH): 2months @ PRIELE November December;
 task: tests AMBSLP and TF-DO firmware
- 3. M. Piendibene: 6 months @ CAEN October 15 2013— April 15 2014 –approved change by PO task: integration tests small pre-productions
- 3. D. Dimas: 2 months @ AUTH January February or Feb-March '14 approved change by PO task: integration tests small pre-productions
- 5) M. Dell'Orso describes the recruitments whose competitions have to be published in the next future:
 - 1. UNIPI: assegno di ricerca November 2013- October 2015 -

WP 4 Simulation, performance studies – call exiting now

2. LPNHE: contract October 2013- September 2014 -

WP6-WP2 -Silicon read-out and Silicon data processing

3. AUTH: contract February 2014 - January 2016

	Piendibene @ CAEN 6 months – tests - prepr Gentsos Louisa Dimas @ Priele @ AUTH CAEN								oroduction Piendibene Sakellariou @ PRIELE						E ns	e 6 5 _ I-I	D CA	libene AEN nths oduction	task?	which will be the task? Institut ions are invited to			
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FTK Level-2 Interface Crate (FLIC)		test		W	SSB	- RC	S		L	Global Ir	nt.]	FTK s	chedule

in the experiment ATLAS with future secondments superimposed. Here it is reported on the left

Presentation by Paola Giannetti.

- Paola Giannetti, first of all summarizes the status and the future plans for the hardware development, after that lists the relative HW Milestones and Deliverables for the first year.
 We have different generations of boards and AMchips:
 - a. See Kostas talk for info on the Demonstrator: AMBFTK, LAMBFTK and AMCHIP04 (14 mm^2) produced and under test; the existing systems seems to work up to now, but the Amchip package is not ok for large chip (>1 cm2) →new package, new IP core, new serialized I/O
 - b. See Saverio talk for a description of new boards: New AMBSLP; New LAMBSLP in two versions:
 - i. Mini_LAMBSLP for Miniasic Amchip to test the IP core with QFN package
 - ii. LAMBSLP for final BGA package (23x23 mxm) for AMchip05 and 06.

List of 2013 Milestones

Milestone no. name	WP	Delive	ry Comments
	Leader	date	
M.4.1. Demo general simulation ok	UniPisa	M6	Demonstrator simulated architecture ok
M.1.1. Slp2 prototype ok at Priele	PRIELE	M12	SLP2 prototype validated at PRIELE
M.1.2. Prototypes Atlas Review	PRIELE	M12	Atlas evaluation of FTK prototypes
M.2.1. Demonstrator ok at Caen	CAEN	M12	Demonstrator runs flawlessly at Caen
Status of Milestones:			

M.4.1 100% satisfied: basical AMBFTK simulation OK, tests are possible; see tests described by K. Kordas

- M.1.1. Ongoing work (see Marco's and Saverio's talks); we expect to be in time for M12
- M.2.1. Test stand at CAEN is setup- let's organize Integration with AUX card with Chicago people for M12.
- M.1.2. Prototypes Atlas Review: Let's organize them after tests of SLP2 at PRIELE. In time for M12.

<u>List of 2013 Deliverables</u>

Del. no	Deliverable Title	-	Nature - D	Dissemination	n level -	Delivery date
D.2.1. VS infra	structure at CAEN for FTK demonst	rator	integration	R	RE	M6
D.4.1. FTK Den	nonstrator detailed simulation			R	RE	M9
D.4.2. Test Ved	ctors for the FTK demonstrator			R	RE	M10
D.2.2. FTK den	nonstrator fully integrated with old	pow	er supply	Pub	PU	M12
D.1.1. SLP2 pro	ototype constructed at PRIELE			Pub	PU	M12
D.6.1 Test ben	ch			R	RE	M12

Status of Deliverables:

D.2.1. the VS infrastructure at CAEN exists; CAEN, WP2 leader, is requested to submit the report.

The work is advanced for all the other items, we expect no problem to produce the expected deliverables.

• Paola Giannetti presents also the outreach milestones and deliverables:

List of Milestones

M.7.1M.7.3.	Open Days results verification	AUTH	M8, M20,M32
M.7.4. –M.7.6.	WorkS. days results verification	AUTH	M6, M18,M30 JULY
M.7.7. –M.7.9.	Summer schools results	AUTH	M7, M19,M31

List of Deliverables

D.7.1. IAPP project open days	R	PU	M7, M19, M31, M43
D.7.2. Workshop days	R	PU	M5, M17,M29, M41
D.7.3. Summer school weeks	R	PU	M6, M18,M30, M4
D.7.4 D.8.3 World wide web site for	nation		
	R	PU	M6, M18, M30, M48
D.8.1. FTK Workshops	R	RE	M1, M13, M30, M46
D.8.2. Trainings (next is CAEN)	R	RE	M1, M5, M9,M19, M29, M47

A summary of what has been done is reported and the rest has been planned. The first **Open IAPP day** has been organized in Pisa in the occasion of the "Department congressino"; FTK communicates to students with posters, the lab has been made available for visits, presentations to young Italian students have been done on particle physics, the Universe, the sky and the Stars. Some examples are: "Il Bosone di Higgs", "Il Cielo dei Raggi Gamma", "Quark, Gluoni e Supercalcolo", "Dalle stelle binarie all'Universo in espansione".

April 17 2013 http://www.df.unipi.it/eventi/congressino-2013. Photos of the event are in Paola Giannetti talk. A second section during the year will be organized for the night of the research in Pisa (September).

- The first Workshop day has been planned by the assembly in Pisa the July 12 for Italian students:
 LHC e l'ago nel pagliaio: http://agenda.infn.it/conferenceDisplay.py?confId=6648
 Presentatrions from the coordinator Mauro Dell'Orso and the seconded researchers Kostas Kordas and Calliope Sotiropoulou have been available. Photos of the event and slides are available at the web site. Students have been allowed to visit the FTK lab in Pisa.
- The first Summer School has been planned by the assembly in Pisa, the week July 1 4: "VHDL language and use of ISE Xilinx CAD" http://agenda.infn.it/conferenceDisplay.py?confid=6549
 Lessons will be provided by the teacher Calliope Sotiropoulou (seconded to CAEN) and exercises immediately after executed with the help of the teacher assistants Marco Piendibene and Daniel Magalotti. The goal is to learn how to complete a project (see the web site) and to simulate it. A Lab section will be done the last day. The students: Kostas Kordas seconded from AUTH to CAEN; Dimitrios Dimas seconded from Priele to Pisa; Guido Volpi (CERN): interested to FTK recruitments; one PHD student from Milan, 2 University students from Milan and two from Pisa, a Japanese FYK collaborator, Takashi Kubota from University of Melbourne, Mariano Falcitelli a CNR researcher in Pisa. Each student has been provided of its own CAD station to perform exercise (see photos at web site)
- The FTK IAPP project web site has been organized by Kostas Kordas (AUTH).
 http://www.pi.infn.it/~kordas/FTK_iapp/ See Kostas talk at EB web site.
- The first FTK workshop and the UNIPI training have been organized in Pisa during week 11-14 March 2013, http://agenda.infn.it/conferenceDisplay.py?confld=5960, the same week of the kick-off meeting. The Workshop and training goal was to introduce the participants to the FTK project. Seminars and visits to the lab have been provided covering all the FTK project aspects.
- The CAEN training has been planned for the July 29, choosing a day that could maximize the number of secondments at CAEN.

The assembly establishes that the correlated reports (Deliverables) are in charge of the WP leaders. In case of Outreach activity, the Institution organizing the event should contribute strongly. In the following months we have to satisfy the Outreach Milestones, analysing the results of the performed outreach. The assembly establish also that the training at AUTH should be organized in autumn (M9).

PRESENTATIONS about the work performed by the seconded or to be seconded persons (see the slides at web site):

"Two dimensional clustering in the pixel detector for FTK"

by L. Sotiropoulou

"Integration of the FTK demonstrator at Pisa and CAEN; AMBFTK, LAMBFTK and Proto-AUX tests" by K. Kordas

"Board Design: AMBSLP and LAMBSLP; LAMB_x_miniasic; contributions of the UNIPI, PRIELE and CERN participants" by A. Sakellariou & S. Citraro

"Fimware & software for the AMBFTK monitoring & diagnostic: work in Pisa now and at PRIELE next" by M. Piendibene. "FTK IAPP Project Web Site" by K. Kordas.