

CTF3 Collaboration Board

22. 6. 2007

3rd CTF3 Collaboration Board

Friday 22 June 2007
from 14:00 to 17:40
at CERN (354-1-001)
chaired by:
**Mario Calvetti (Dipartimento
di Fisica)**

Participants: Jean-Pierre Delahaye; Shrivastava Purushottam; Mayda Velasco; Sebastien Vilalte

Friday 22 June 2007 |


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14:00 Welcome addressing by the Chairman (10') Mario Calvetti (*Dipartimento di Fisica*)



14:10 Approval of the Minutes of the last Collaboration Board held on 16 Jan 07 (10') ( Minutes )

14:20 Outcome of the X-Band Accelerating Structure Design and Test-Program Workshop held at CERN on 18-19 Jun 07 (10') Jean-Pierre Delahaye (*CERN*)

14:30 Status of CTF3 (30') ( Slides ) Gunther Geschonke (*CERN*)

15:00 Coffee served

15:30 Report on the CLIC Advisory Committee (CLIC-ACE) (45') ( Slides ) Tor O. Raubenheimer (*SLAC*)

16:15 List of Contributions to CTF3 (15') ( Slides )

16:30 "Tour de Table" (30')

17:00 Discussion and Conclusion (20')

17:20 AoB (20')

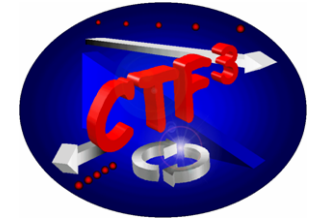
- ◆ CLIC Workshop on 16-18 Oct 07 at CERN (10')
Conference Room: AB Auditorium Meyrin (6-2-024)

- ◆ Dates for the next meetings (10')

Proposed dates for CTF3 Collaboration Meeting:
16-18 Jan 08 (in room 40-S2-B01) or
23-25 Jan 08 (40-S2-B01)

Proposed dates for next CTF3 Collaboration Board:
18 Jan 08 pm (in Main bldg, 6th floor conf room) or
25 Jan 08 pm (Main bldg, 6th floor conf room)

Collaborating institutes



<i>Countries</i>	<i>Funding Agencies</i>	<i>Laboratory</i>
	CERN	CERN
FINLAND		Helsinki Inst of Phys (HIP)
FRANCE	CEA	DAPNIA Saclay
	CNRS/IN2P3	LAL
		LAPP
		LURE
INDIA *	Indian DAE	RRCAT, Indore
ITALY	INFN	LNF
PAKISTAN *	PAEC	NCP
RUSSIA		Budker Inst (BINP)
		IAP
	Dubna	JINR
SPAIN	Ministry of Education & Science (MEC)	CIEMAT
		UPC
		IFIC
SWEDEN	Swedish Research Council Wallenberg Foundation	Uppsala University
		TSL
SWITZERLAND		Paul Scherrer Inst (PSI)
TURKEY		Ankara Univ Group (2)
USA	DOE	Northwestern Univ Illinois (NWU)
		SLAC

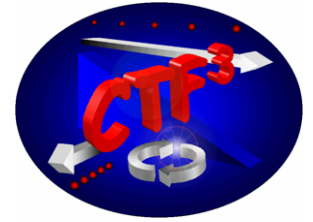
**17 members
involving 22 Institutes**

* India and Pakistan have not signed the CTF3 MoU, but have an agreement with CERN for the development of novel accelerator technologies

Draft MoU Addendum with J.Adams Institute London

Discussions with : Iran, UK (Cockcroft Institute), JLAB, EPFL, INFN Milan

Past collaboration with RAL within PHIN



Most collaborating institutes were present

New member: First British institute!

John Adams Institute,

Royal Holloway, University of London

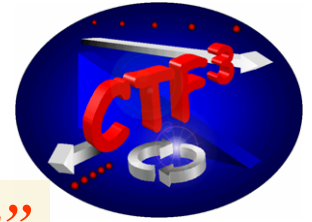
“radiative processes from electron beams”

(transition, diffraction, synchrotron radiation)

Instrument test beam (EU proposal)

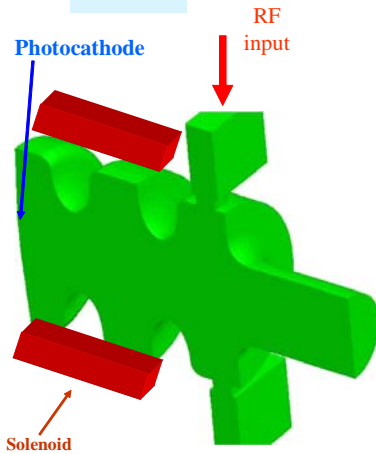
total 640 kCHF

Photo Injector



smaller emittance, faster phase coding, no “satellite bunches”

LAL



Phase 1:
off-line testing from 2007

CERN

Cs₂Te photo cathode
3% QE
40 hours life time
pulse train: 1.5 μ s,
charge per bunch: 2.33 nC
bunch spacing 0.67 ns
number of bunches: 2332

Phase 2:
Gun in CTF3: earliest spring 2008 ?????

RAL

diode pumped Nd:YLF laser
10 μ J IR / bunch
0.37 μ J UV on cathode / bunch

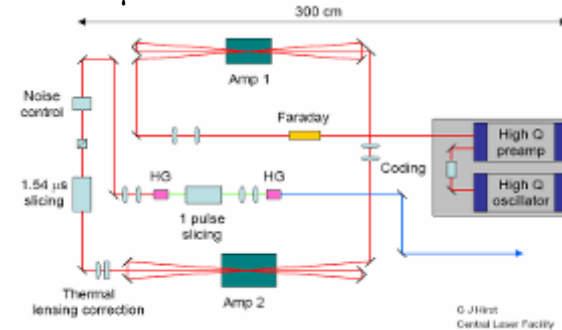
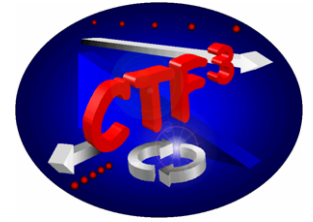


Photo Injector



Present status:

RF gun being built, ready end 2007 ??

Laser at CERN, needs to be finished

(full system has never worked, no phase coding, no control system, no feedbacks.....)

RAL does not collaborate any more

strong involvement from CERN, INFN Frascati and Milan

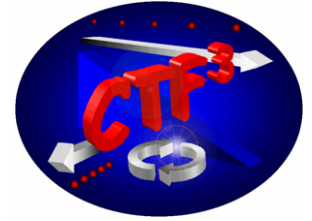
Laser is needed also for CALIFES injector !

Action proposed by the Chairman:

meeting with CERN, INFN, other interested institutes ???

→ advance on laser high priority

Structure testing



30 GHz testing at CERN will continue for a while.

CTF3 can only produce 12 GHz.

Test of PETS only possible at CTF3 (Two Beam Test Stand)

Collaboration with SLAC and KEK on structure development / fabrication as well as testing at x-band (11.4 GHz).

Stand-alone RF source at 12 GHz at CERN is mandatory.

Several labs in Europe interested as well (PSI, INFN, Elettra)

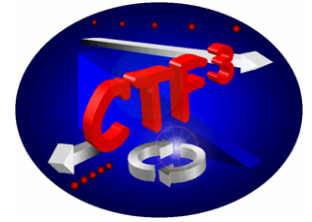
11.9942 GHz, 50 MW peak, 1.5 μ s, 50 Hz

Budget: 3.5 MSFr, could be operational in 2009

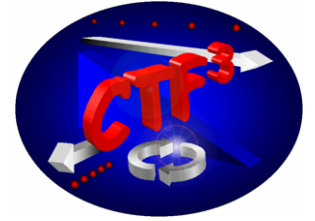
A possible schedule

	2007												2008												2009						
	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7					
Klystron Price Enquiry	█	█																													
Finance Committee Approval				█																											
Order Klystron				█																											
Klystron design			█	█	█	█	█	█																							
1st Klystron Manufacture and Delivery									█	█	█	█	█	█	█	█	█	█	█	█											
2nd Klystron Manufacture and Delivery																					█	█	█	█	█	█					
Modulator Price Enquiry	█	█																													
Finance Committee Approval				█																											
Modulator Manufacture and Delivery					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█												
Preparation of Modulator area			█	█	█	█	█	█	█	█	█	█	█	█	█	█															
Procurement and preparation of auxiliaries			█	█	█	█	█	█	█	█	█	█	█	█	█																
Preparation of test area			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█											
Procurement and manufacture of test area equipment			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█					
Low level RF			█	█	█	█	█	█	█	█	█	█	█	█	█	█															
START TEST STAND COMISSIONING (single klystron)																					█	█	█	█	█	█					

CLIC resources from CERN



		2008	2009	2010	Total
Material budget (kCHF)	Present MTP	3485	3485	3485	10455
	Additional LTP (CLIC-PLO/06-17 and White Paper)	4000	4000	4000	12000
	12 GHz power test stand and structure tests	1050	1850	600	3500
	Total additional (to present MTP plans) resources	5050	5850	4600	15500
	Total needed resources (to be included in future MTP)	8535	9335	8085	25955
Man-Power (FTE)	Present MTP	30.5	28	26.5	85
	Additional LTP (CLIC-PLO/06-17 and White Paper)	20	20	20	60
	12 GHz power test stand and structure tests	3	3	3	9
	Total additional (to present MTP plans) resources	23	23	23	69
	Total needed resources (to be included in future MTP)	53.5	51	49.5	154



The collaboration will also accept members
working exclusively on CLIC.

open work packages have to be distributed with dates

DG's summary:

He reminds the collaboration of the deadline.
“Christmas is not at Easter.....”