PH-DT Detector Technologies

- The Groups DT1 and DT2
- DT > (DT1 + DT2) (Synergy?)
- Structure and organization of DT
- Where am I?
- Functions and names
- Work plan 08 / 09
- Discussion

DT1 Overviews of Activities:

47 staff + 2 fellows, 2 FSU (10 pers.) 12 projects, 4 services.

Magnets + Track. + Id. **Gas Section Detector** Instrumentation Design & Mech. and Control Integration Section • ALICE TPC + ATLAS TRT • 26 LHC gas Magnet design, Magnet Control HMPID, systems: ATLAS ID support and + Safety, TOTEM, Cast Development, Integration maintenance Cooling control, construction, Glueing Lab. ATLAS Trk TOTEM RP M&O TOTEM Motor Mech. Workupgrade Det. ass. drive, B-Field Gas Piquet shop B162 • NA62 support meas. Service · Mech. Work- Piquet (MCS, shop B108. MSS, DSS, Mech RCS)

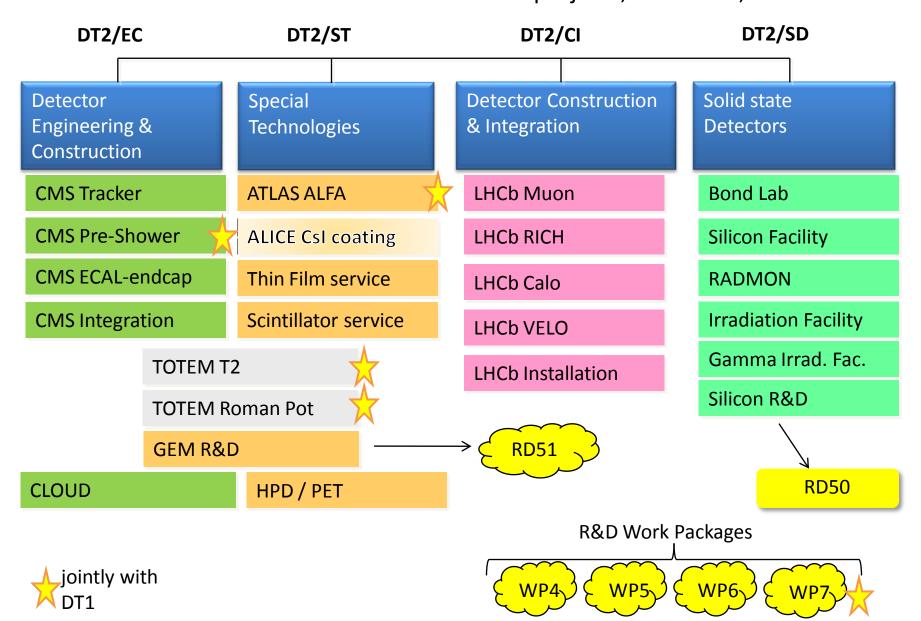
> FSU PH01 (S108)

FSU PH02 (S107) **R&D Work Package**



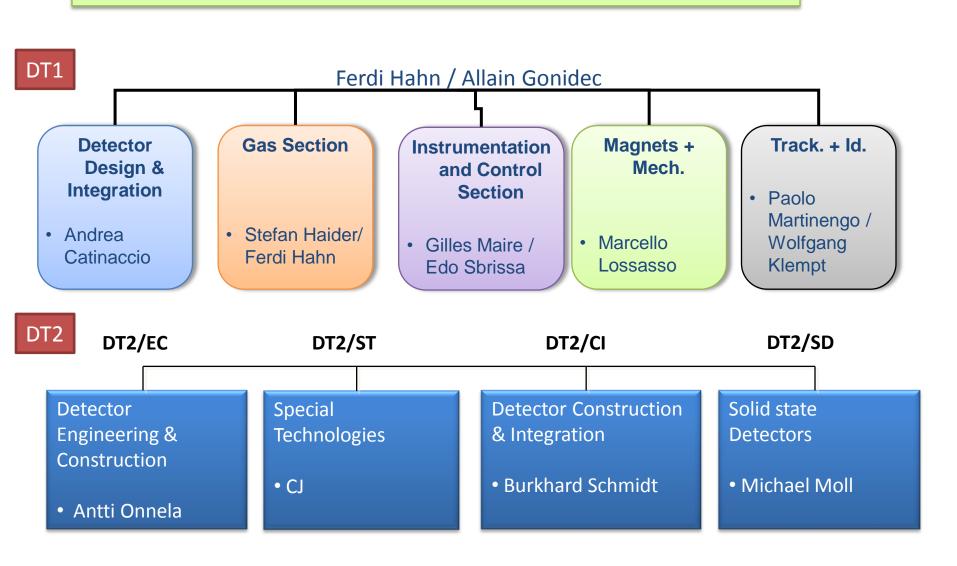
DT2 Overviews of Activities:

30 staff + 8 students/fellows 14 projects, 7 services, 3 R&D lines



Before talking about the new structure and names ...

I would like to thank the current group and section leaders for excellent work during a couple of tough years



DT > (DT1 + DT2) (Synergy?)

Original estimates: DT1 (45) + DT2 (30) = 75 staff

Today: DT is expected to have 82 staff

But several will retire very soon!

Explanation: Most of the ALICE technical team has been transferred to DT

PERINI Diego mechanical engineer
TAUREG Hans
LABBE Jean-Claude
DENARIE Charles-Henri
ANSTETT Didier
BOUVIER Philippe
IJZERMAN Peter

Mark Hatch, a mechanical engineer from ATLAS is also joining DT

More people could follow in coming years (LHC, CMS ...)

DGLs: F. Hahn (Resource Coordinator), A. Onnela (Glimos)

Projects Office		Detector Infrastructure		Technologies and Physics		Engineering & Mechanics 1		Engineering & Mechanics 2	
1 Andrea Catinaccio		Ferdinand Hahn		Christian Joram		Diego Perini		Hans Danielson	
2BAULT	Christophe Daniel	BERGSMA	Felix	BAECHLER	Joachim	ALBRECHT	Erich	PEREZ GOMEZ	Francisco
3DAVID	Eric	BOURGEOIS	Nicolas	D'AMBROSIO	Carmelo	CANTIN	Bernard	BEN ROMDHANE	Mahdi
4LENOIR	Philippe	BRAEM	Andre	DAVENPORT	Martyn	CHADAJ	Bernard	BENDOTTI	Jerome
5 <mark>ONNELA</mark>	Antti Tero Olavi	CARRIE	Patrick	GYS	Thierry	DELATTRE	Michel	BODE	Alain
6PINTUS	Ronald	COSSEY PUGET	Francoise	KLEMPT	Wolfgang	DUMPS	Raphael	BRUNEL	Bernard
7RANGOD	Stephane	D'AURIA	Andrea	MARTINENGO	Paolo	FERRAND	Andre	CHARRA	Patrick
8WERTELAERS	Piet	DAVID	Claude	MOLL	Michael	FRAISSARD	Daniel	DIXON	Neil David
9HATCH	Mark	DE MENEZES	Louis-Philippe	ROPELEWSKI	Leszek	KOTTELAT	Luc-Joseph	FOLLEY	Adrian
10		DERONT	Laurent	SCHMIDT	Burkhard	KRISTIC	Robert	GARNIER	Francois Andre
11		FORTIN	Richard Georges	CAPEANS	Maria Del Mar	LESENECHAL	Yannick	GIUDICI	Pierre-Ange
12		GLASER	Maurice	TAUREG	Hans	LOOS	Robert	DE OLIVEIRA	Antonio
13		GUIPET	Antoine			MULON	Jose	LANCON	Philippe
14		HAIDER	Stefan			PIEDIGROSSI	Didier	NOEL	Jerome
15		MAIRE	Gilles			VAN BEELEN	Jacob Bastiaan		
16		MCGILL	lan			DENARIE	Charles-Henri		
17		MERLET	Frederic			ANSTETT	Didier		
18		OLESEN	Gert			BOUVIER	Philippe		
19		PAVIS	Steven			IJZERMAN	Peter		
20		PONS	Xavier						
21		RAVAT	Sylvain						
22		REY-MERMIER	Roland						
23		SBRISSA	Edo						
24		SCHNEIDER	Thomas Hans						
25		VAN STENIS	Miranda						
26		WASEM	Albin						
27		LABBE	Jean-claude						

Projects Office

1	Andrea C	atinaccio
2	BAULT	Christophe Daniel
3	DAVID	Eric
4	LENOIR	Philippe
5	ONNELA	Antti Tero Olavi
6	PINTUS	Ronald
7	RANGOD	Stephane
8	WERTELAERS	Piet
9	HATCH	Mark



- Mechanical Designs
- Structural Calculations
- Project planning and follow-up
- Quality Assurance

	Detector II	nfrastructure
1	Ferdina	and Hahn
2	BERGSMA	Felix
3	BOURGEOIS	Nicolas
4	BRAEM	Andre
5	CARRIE	Patrick
6	COSSEY PUGET	Francoise
7	D'AURIA	Andrea
8	DAVID	Claude
9	DE MENEZES	Louis-Philippe
10	DERONT	Laurent
11	FORTIN	Richard Georges
12	GLASER	Maurice
13	GUIPET	Antoine

14	HAIDER	Stefan
15	MAIRE	Gilles
16	MCGILL	lan
17	MERLET	Frederic
18	OLESEN	Gert
19	PAVIS	Steven
20	PONS	Xavier
21	RAVAT	Sylvain
22	REY-MERMIER	Roland
23	SBRISSA	Edo
24	SCHNEIDER	Thomas Hans
25	VAN STENIS	Miranda
26	WASEM	Albin
27	LABBE	Jean-Claude

- Gas Systems
- Instrumentation and Controls, Magnets
- Thin Film & Glass
- Silicon Facility
- Irradiation Facilities

	Technologies	s and Physics
1	Christia	n Joram
2	BAECHLER	Joachim
3	D'AMBROSIO	Carmelo
4	DAVENPORT	Martyn
5	GYS	Thierry
6	KLEMPT	Wolfgang
7	MARTINENGO	Paolo
8	MOLL	Michael
9	ROPELEWSKI	Leszek
10	SCHMIDT	Burkhard
11	CAPEANS	Maria Del Mar
12	Taureg	Hans

- Development of detectors and components
- project management

Engineering & Mechanics 1

Dieg	go <mark>Perini</mark>
ALBRECHT	Erich
CANTIN	Bernard
CHADAJ	Bernard
DELATTRE	Michel
DUMPS	Raphael
FERRAND	Andre
FRAISSARD	Daniel
KOTTELAT	Luc-Joseph
KRISTIC	Robert
LESENECHAL	Yannick
Loos	Robert
MULON	Jose
PIEDIGROSSI	Didier
VAN BEELEN	Jacob Bastiaan
DENARIE	Charles-Henri
ANSTETT	Didier
BOUVIER	Philippe
IJZERMAN	Peter



- Engineering
- Construction
- Infrastructure
- Operation/Maintenance (P2, 5 and 8),
- workshops (B17, 166)

	Engineering &	& Mechanics 2
1	Hans Da	nielsson
2	PEREZ GOMEZ	Francisco
3	BEN ROMDHANE	Mahdi
4	BENDOTTI	Jerome
5	BODE	Alain
6	BRUNEL	Bernard
7	CHARRA	Patrick
8	DIXON	Neil David
9	FOLLEY	Adrian
10	GARNIER	Francois Andre
11	GIUDICI	Pierre-Ange
12	DE OLIVEIRA	Antonio
13	LANCON	Philippe
14	NOEL	Jerome

- Engineering
- Construction
- Infrastructure
- Operation/Maintenance (P1 + PS / SPS)
- Workshop (B108)

GL: Christian Joram

Deputies:

Ferdinand Hahn / Antti Onnela

'Resource Coordinator'

- Budgets
- Space
- Planning APT

Safety Linkman Workshops

B166.

Secretariat

Veronique Wedlake (50 or 100 %) NN (50%)?

Kate Ross will stop working for DT (full time for PH department (1 May))

Office / lab space

New colleagues from ALICE move to B16. Offices ~available.

Designers should work together in Project office (25-R-028). Space for ~4 designers + 2 engineers.

Later in 2008 / 09 removal of individual people possible depending on project attribution.

Mechanical workshops

We keep all existing workshops operational!

B166	high precision mechanics, CNC milling machine, CNC turning machine being ordered, 'controlled' access for all projects
B162	mainly to support ALICE and LHCb M&O
B108	mainly to support ATLAS M&O and magnets team.
B187	scintillator workshop
В3	Workshop specialized on glass and ceramic machining
B20	small workshop, R. Dumps

One/two responsibles per workshop. Antti Onnela will be in charge of all workshops (equipment, conformity, safety, problems...)

Work plan 08 / 09

Rule 1: All current projects continue with the current manpower composition.

Completion / commissioning of LHC projects has highest priority.

Rule 2: Whenever possible, manpower becoming available shall be used to help completing LHC projects.

We have several LHC projects where <u>installation</u> is only foreseen in 08 / 09:

- CMS ECAL endcap
- CMS preshower
- TOTEM T2
- TOTEM RP
- ATLAS ALFA

There is a need for extra manpower already now.

- M&O and shutdown work in the LHC experiments: for gas systems, magnets, DSS,
 RCS quite well defined, but not yet for the detectors.
- Our task for the coming months: Discussions/negotiations with the experiments. →
 Define M&O work by DT on detectors and infrastructure.

New projects, still 2nd priority

Detector upgrade activities

- LHCb VELO replacement
- CMS TRK
- ATLAS TRK
 ALICE HMPID
- TOTEM T1

In the long and slow process of being defined. Meetings /discussions.

New detectors

- NA62
- CLOUD

So far, marginal DT involvement. Requires decision by CERN top management and collaborations.

2nd priority...

PH R&D Work packages

- WP 4 Si-detectors, RD50
- WP 5 Gas detectors, RD51
- WP6 Connectivity
- WP7 Irradiations/material studies

We have started to invest resources (several fellows and students, ~600 kCHF in 2008).

We need also technicians!

Engineering R&D,

• cooling technologies (e.g. based on CO₂), (composite materials).

Discussions DT/CMS/ATLAS. Work package proposal being drafted. What, who, when, how many CHF? Intend to organize a workshop at CERN in 2009.

3rd priority

Non-core activities
X-HPD, AX-PET, scintillator studies

Resources must mainly come from outside CERN. Should not extend 10-20% of a person's time.

Jobs in DT (= group internal mobility)

- Technical support of p/n irradiation facility in PS area, 50-75%, versatile mechanical technician.
- Technical support for PH DSO, ~50% (2 x 25%).
- Technical support for WP5 / RD51, ~50%. Gas detector construction, assembly, testing, setting up a permanent test beam zone.
- Safety technician in PH safety office. Cat. C, Good English/French. Admin. + technical work. Requires extra training. Position would be in PH/DI group.

Meetings

DT2 had in the last 3 years about 20 'Science-techno tea' meetings. Typically 30 participants, even though time was not attractive: Fri, 16:00.

Phys/Eng/Tech talked about their projects.

We would like to continue this, keeping focus on group projects and technical subjects. Format may change a bit.





Consider DT science-techno tea as complement to PH Detector seminar (which will be re-activated this year).

Real group meetings: not very often (1-2 x per year), whenever needed.





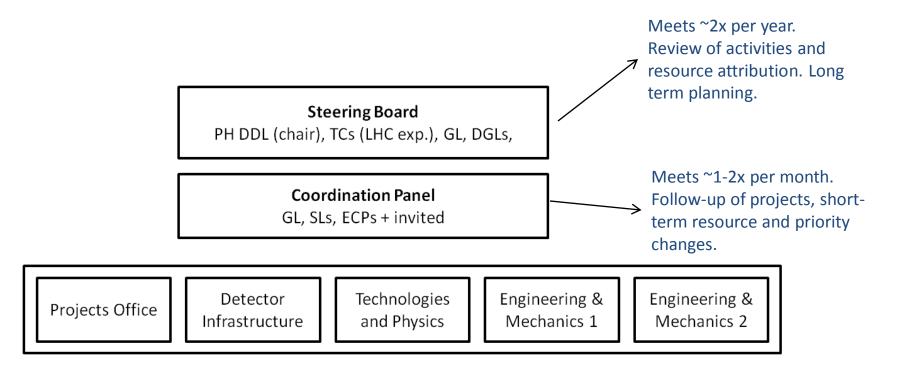
Back-up

Р	Projects Office	Detector Infrastructure	Technologies and Physics	Engineering & Mechanics 1	Engineering & Mechanics 2
M&O 1					
M&O 2					
Infrastructure M&O 1					
	·			<u> </u>	'
Infrastructure Project 1					
				<u> </u>	·
Detector Project 1					
Detector Project 2					
	· ['		' 	'
R&D Project 1					

DT group will represent ~20% of PH total staff.

It will be the main resource in PH for detectors and their infrastructure.

→ We need to involve Department and LHC experiments in its management.



- DT project leaders for every project.
- Experiment Contact Persons (ECP) ensure a permanent and direct link to the LHC experiments.