

- Conclusions of the 22 March 2005 RADMON meeting
 - **ALICE:**
 - Passive dosimetry in the (multi-) Gy/year for components survey;
 - 32 measurement points with TLDs (4 in TPC, 4 in TDR+TOF, 4 in HMPID+PHOS, 10 in μ electr. and 10 in racks);
 - **ATLAS:**
 - Still elaborating on the model of radiation monitors;
 - Current strategy= the usage of the passive sensors as a one time exercise to calibrate the radiation map in the cavern that can be scaled with the on-line monitors;
 - No number yet.
 - **CMS:**
 - Still under study (type of TLD);
 - A very preliminary estimate:
 - 80 measurement points with TLD; 2 or 4 TLDs per points
=>total= 160 or 320;
 - 64 measurement points with alanine;

- **LHCb:**
 - Under study (no number yet)
- **TOTEM**
 - Under study (no number yet).

Passive dosimeters: summary of users requirements

Estimation 2004

	TLD	alanine	RPL	total
ALICE	few 10th		few 10th	$\sim 50 \times 2 + 50$
ATLAS	few hundred			$\sim 200 \times 2$
CMS	few hundred			$\sim 200 \times 2$
LHCb	<100	~ 50		Max. 100 $\times 2 + 50$

- TLD ~ 1100
- alanine ~ 50
- RPL ~ 50

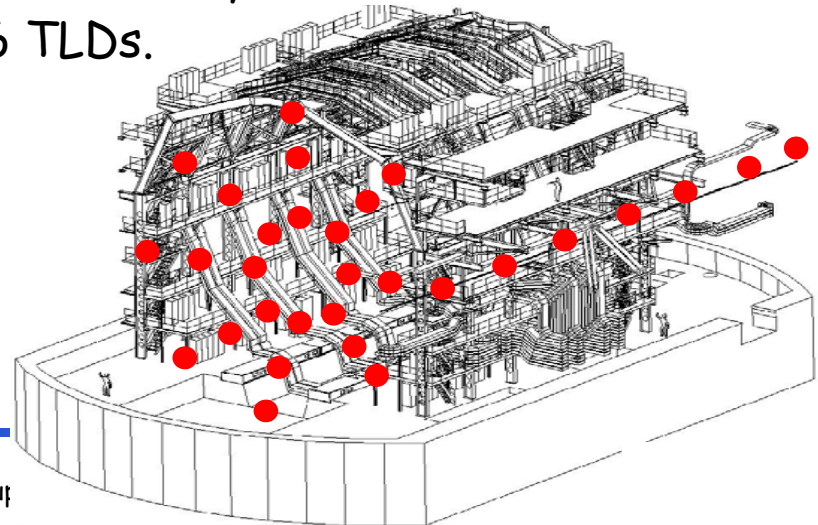
Estimation 2005

	TLD	alanine	RPL	total
ALICE	32×2	?	?	64
ATLAS	?	?	?	?
CMS	160 to 320	64	no	Min. 224 Max. 384
LHCb	?	?	?	?

- TLD $\sim ?$
- alanine $\sim ?$
- RPL $\sim ?$

Passive dosimeters: summary of users requirements

- The requirements today:
 - **ALICE**: idem as last meeting i.e.
 - Passive dosimetry in the (multi-) Gy/year for components survey;
 - 32 measurement points with TLDs;
 - **ATLAS**:
 - Passive monitors: only TLDs (^6LiF , ^7LiF);
 - On or close to the electronics racks around the cavern;
 - 24 locations on each endcap side of the detector;
 - 5 circles of 8 locations around the detector;
 - Total= 88 locations x 2 TLDs= 176 TLDs.



Passive dosimeters: summary of users requirements

- CMS:
 - Under study

- LHCb
 - Preliminary numbers;
 - Start-up phase exchange of passive monitors after $\frac{1}{2}$ year; later once per year;
 - 8 locations with RPL or alanine;
 - 118 locations with TLDs.

- TOTEM
 - 6 passive dosimeters for each of the 24 pots => 144 dosimeters;
 - Type of the dosimeters = under study (RPL and Alanine= more probable).

Passive dosimeters: summary of users requirements

Estimation March 2005

	TLD	alanine	RPL	total
ALICE	32 x 2	?	?	64
ATLAS	?	?	?	?
CMS	160 to 320	64	no	Min. 224 Max. 384
LHCb	?	?	?	?
total	?	?	?	?

Estimation September 2005

	TLD	alanine	RPL	total
ALICE	32 x 2	?	?	64
ATLAS	88 x 2	no	no	176
CMS	160 to 320	64	no	Min. 224 Max. 384
LHCb	118 x 2	← 8 →		244
TOTEM	?	?	?	6 x 24 = 144
total	Min. 644 Max. 804	?	?	Min. 852 Max. 1012

- Proposal for TLDs readout
 - Should upgrade the reader: new PC and software?
 - New reader (Harshaw model 6600 plus)?
 - Outsourcing (IRA in Lausanne, IFJ in Cracow or Forschungszentrum in Karlsruhe)?
 - Discussion with Safety Commission /Radio Protection (2260 TLDs);
 - Common TLD service for SC/RP + experiments.

	CERN (No outsourcing)	Outsourcing IRA (Lausanne)	Outsourcing Karlsruhe	Outsourcing IFJ (Cracow)
TLD 6LiF - 7LiF	SC/RP 2260 TLDs: 43.4 kCHF Experiments 804 TLDs: 14.5 kCHF	SC/RP 2260 TLDs: 43.4 kCHF Experiments 804 TLDs: 14.5 kCHF		SC/RP 2260 TLDs: 43.4 kCHF Experiments 804 TLDs: 14.5 kCHF
reader	Harshaw Model 5500 75 kCHF			
Reading (freq.=1/year)		3064 x 8 CHF= 24.5 kCHF	3064 x 21.2 CHF=65 kCHF	3064 x 8 CHF= 24.5 kCHF
Investment max 1st year	133 kCHF	82.4 kCHF	65 kCHF	82.4 kCHF
Per supplementary year	0 CHF	24.5 kCHF	65 kCHF	24.5 kCHF
# outsourcing years corr. To purchase of the reader and TLDs at CERN		3 years	2 years	3 years
Comments			Not sure they could provide so much TLDs	