

# TRD ROC Status

TRD Status Meeting

20.08.2008

Sibiu, Romania

# Underpressure Leak Tests

**Total number of chambers done to date: 360**

**SM1 and SM2 still to be done, the rest is in production**

**average leak conductance achieved: 1.81 l/h, spread 2.1 l/h (1  $\sigma$ )**

# Parts and Materials to Finalize Ch. Production

- All parts and materials have been distributed

# TRD-HV Distribution Caps

TPC experiences with “leaking caps” caused worries about the TRD capacitors on the HV distribution board mounted on the chambers

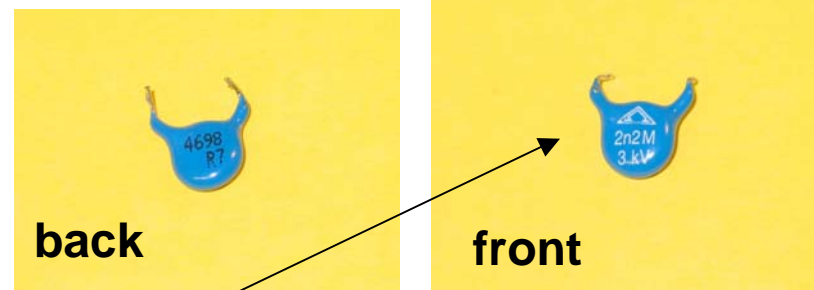
not accessible any more once inside super module

GSI investigated several of these boards:

Boards are equipped with caps from two different suppliers and of different batch numbers for each supplier, some have one common cap with 4.7nF, others with 2.2nF, individual anodes are buffered with 2.2nF, 3kV

# TRD-HV Distribution Caps

51 boards with 9 + 1 caps were measured at 2kV,  
just 5min. about 10 pieces over night.



- boards with supplier A have about 5nA leakage after 5min, over night < 1.5nA, leakage per cap is well below 1 nA, here 4.7nF cap has unknown supplier but looks like the other one.
- boards with supplier B show about 15 to 20 nA even after a night. Each one is not better than 1.8 to 2.2 nA, here we find all 2.2nF.
- no extraordinary outlier was found among the 450 caps investigated
- TPC limits were stated as leakage < 1nA per cap after 2 weeks

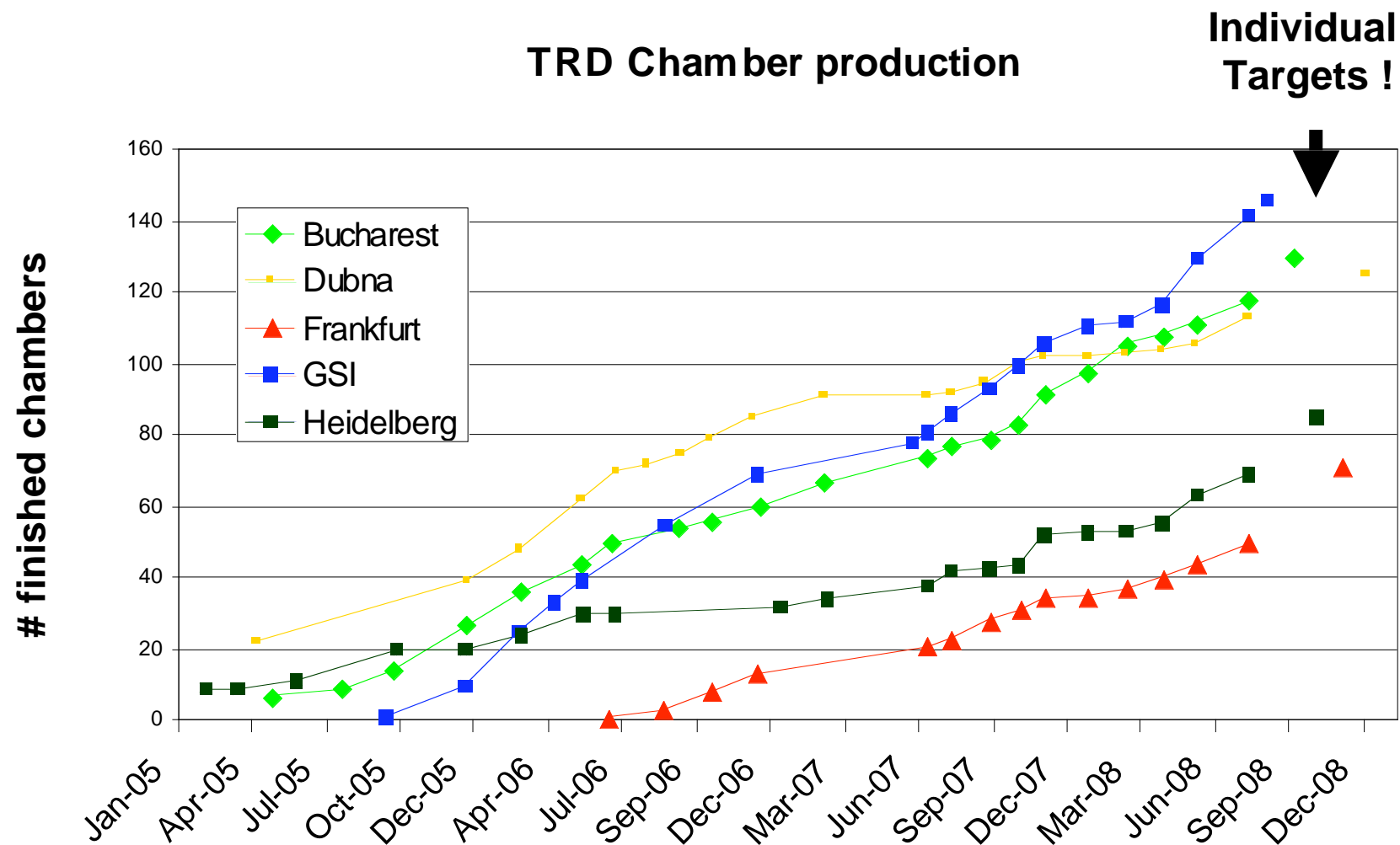


# Production Status

Status 20.08.2008	Bucharest 07.08.2008	Dubna 8..08.2008	Frankfurt 08.07.2008	GSI 08.08.2008	Heidelberg 07.08.2008	Sum	
wired frames	1		2			3	
taped	7		6		7	20	
tested taped			2			2	
glued (tests not completed)	5		2	1	9	17	
finished	112	113	45	141	61	472	
to be repaired					0	0	
Total chambers wired and beyond	125	113	57	142	77	514	93%
Chambers wired and beyond 09.07.2007	79	95	34	85	49	342	
	Apparent production rate over the past year [chambers/week]:					3,07	

514 out of 540 + 15 (spares) are in production, an overall of 93%

# TRD Chamber Production

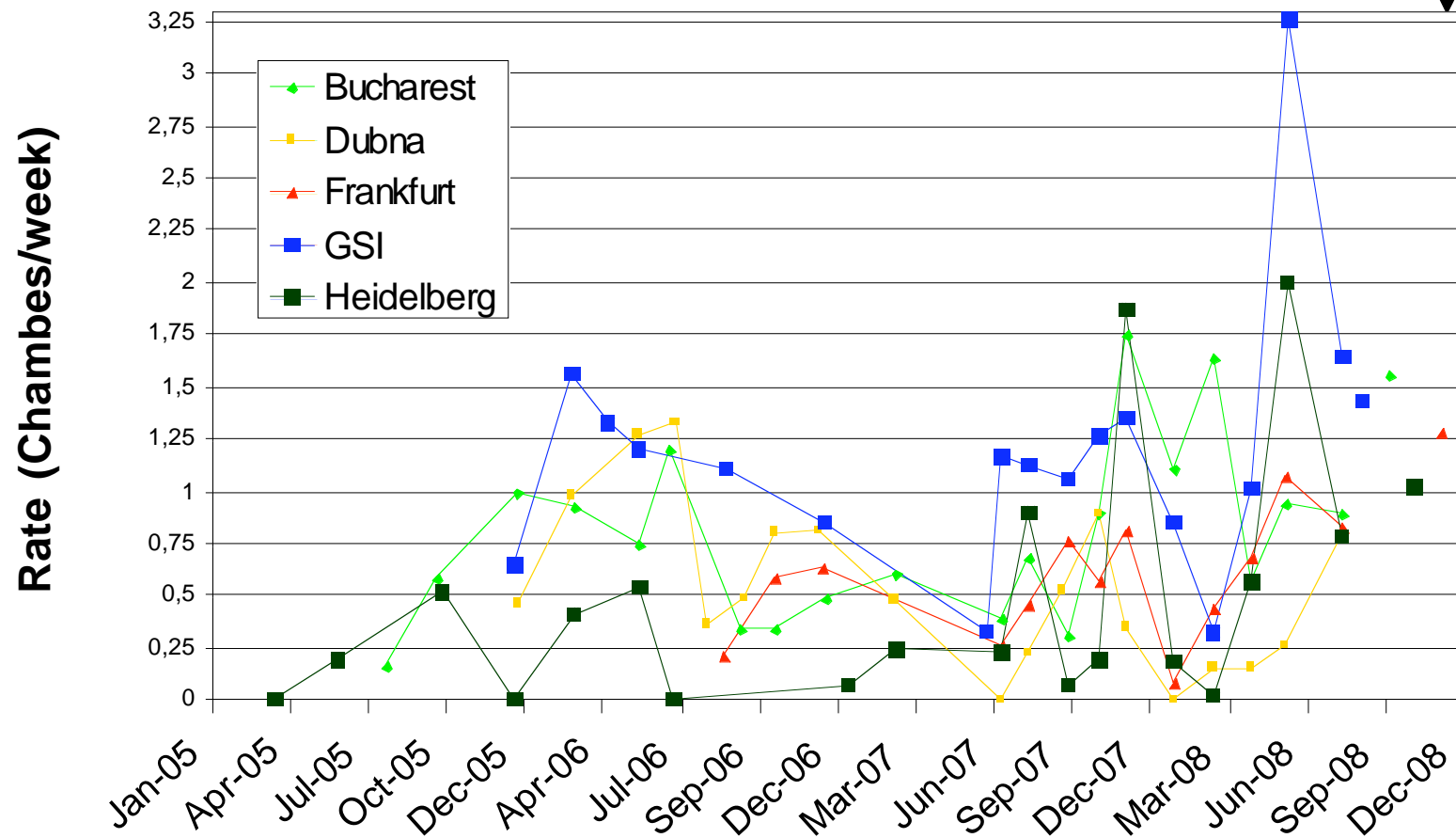


# TRD ROC Momentary Production Rates

Observed History and needed production rates:

TRD ROC Momentary Production rate

Needed  
Rates!





# Individual Issues

- **Bucharest** working on the last batch of 22 L3C1 chambers, finalization expected during September
- **Dubna** working on the last batch of 22 L2C1 chambers, material took until now to be delivered expect to finish in December
- **Frankfurt** production ongoing, rates suggest finalization until the end of the year
- **GSI** finalizing the last chambers additionally overall chamber logistics and finalization expect to finish production during August, early Sept.
- **Heidelberg** finishing Sept. to October seems feasible.

# Summary

- Chamber production is ongoing and reaching its end
- So far, chamber production is not on the critical path!
- What do we conclude about the capacitors? It is urgent to come to a decision before more are assembled into the cave!