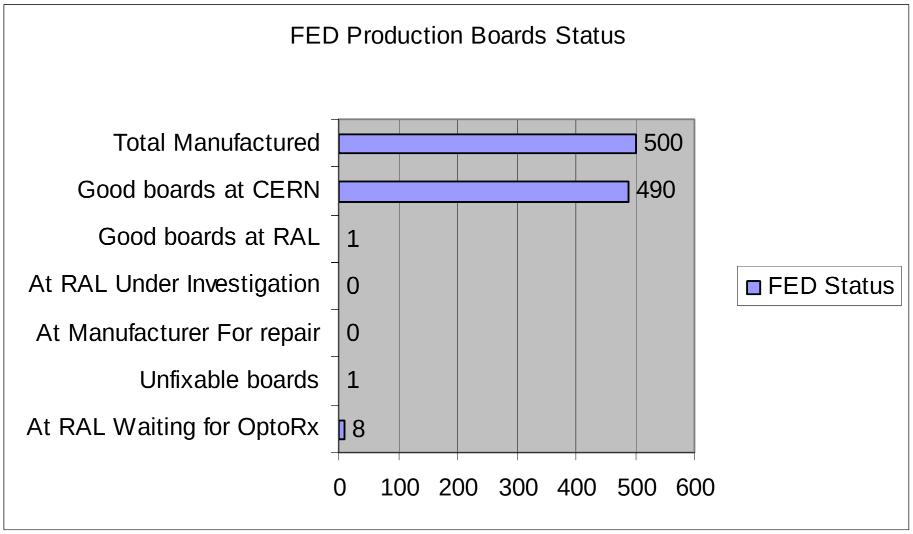
Project Monitor Form

Project: CMS FED **Date:** Friday 23 November-2007	**PMF number: 69** **Sheet:** 1 **of** 2

Project Implementation phase.

FED Production



Full details in Production spreadsheet.

FEDs

A further 7 production FEDs were repaired, retested and sent to CERN.

No further boards have been returned to RAL.

A few empty ORx trays were returned to CERN for final ORx batch.

The Test Rigs at Exception were recovered on Oct 3rd.
All the equipment was recovered in working order.
The remaining test result files have now been archived.

2 Final LHC crates (9 fan tray) with PS were returned to CERN.

The 2 Prototype crates are kept in the RAL Test Rig.

The water cooling for the rack in the new lab in R12 is now operational.

Staff Effort

Ivan has assisted greatly over the past several months in the FED commissioning and also in the general installation and cabling of the tracker system.

However the level of support required for FED maintenance is now lower than expected owing to the generally smooth operation and reliability of the boards to date.

As a result Ivan has been seconded to work on a project for the Space Science Department.

He will continue to be available for the support of the FED Test Rig and any necessary board repairs. But he will not

CERN Installation and Commissioning :

Latest News:
Tracker expected to be moved on 10th December and lowered a day or two afterwards. The hope is that it will be inserted before Christmas. TK connection and checkout expected to start towards the end of January ...

Connecting the tracker fibres to the FEDs in USC began in October.

Some of the Tracker USC Racks on October 18th

DAQ commissioning tests are proceeding well. No major problems reported for FEDs.

Firmware and Software

Matt Noy at Imperial has begun investigating developing alternative FE FPGA algorithms to better deal with the unexpected noise effects observed during the Silicon Tracker module testing.

Saeed has made further improvements to the BE and Delay designs.

sLHC

Report on lessons learnt from FED project presented at the CMS Tracker Upgrade meeting in September.

A final draft of the CMS Upgrade Work Package was submitted to the PPRP in October.
The review of the bid will take place at the PPRP meeting in Glasgow on Dec 4th.
There will be a follow up visit by the PPRP to discuss the CMS upgrade at Imperial in January

Actions from the previous PMF			
Action	**Status**	**Who**	**Original Target date**
Test new heat sinks on ORx	Done	IC	
Finish final revision of Upgrade Work Package.	Done	JC	
Test 2 newly populated boards.	Done	IC	
Release Draft of Fed User Document	Done	JC	30-11-07
Release 64 bit VME BLT interface ready for board test	In Progress	ST	30-11-07

Actions outstanding and new actions		
Action	**Who**	**Target Date**
Release Draft of Fed User Document	JC	31-03-08
Release 64 bit VME BLT interface ready for board test	ST	31-03-08
Provide comments for new FE algorithm proposal	JC	30-11-07

Project Monitor Form- milestones

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Project Manager: J. Coughlan **Date:** Friday 23 November-2007	**Sheet: 2 of** 2

	Milestones from **P**roject **M**anagement **P**lan Version**:1.6**	**date due in PMP**	**predicted date**	**date done**
1	User Requirements Document	30.07.01		26.09.01
2	Project Spec sign off	21.12.01		05.02.02
3	Board Level Preliminary Review	14.01.02		16.01.02
4	FE Analogue Channel Feasibility Review	31.01.02		21.03.02
5	FE Module Feasibility Review	28.02.02		08.05.02
6	Board Level Feasibility Review	25.02.02		25.02.02
7	Delay FPGA Interim Review	11.03.02		27.03.02
8	Front End FPGA Interim Review	28.02.02		12.08.02
9	Back End FPGA Interim Review	04.03.02		17.12.02
10	FE Module Final Review	18.06.02		25.06.02
11	BE Module Interim Review	28.06.02		15.08.02
12	Schematics finalised	05.08.02		22.08.02
13	Layout & Routing done	16.09.02		29.10.02
14	Full Board FEDv1 Design Final Review	23.09.02		06.11.02
15	IDR Customer Production sign off &PCB Tape Out	07.10.02		06.12.02
16	Batch 1 (2 off) Non-Opto Assembled FEDv1s at RAL	11.11.02		22.01.03
17	Old version OptoRx for Batch 0 in UK	26.08.02		28.01.03
18	Batch 2 (3 off incl 1 Opto) Assembled boards at RAL	20.06.03		27.06.03
19	New version OptoRx at RAL	01.04.03		21.07.03
20	FEDv1 Interim Review	08.09.03		11.09.03
21	Batch 3 (6 off all opto) Assembled boards at RAL	30.09.03		08.10.03
22	Ship 1st FEDv1 to CERN.	30.09.03		03.11.03
23	Ship 2nd FEDv1 to CERN.	28.11.03		19.12.03
24	Batch 4 (6 off DDi) Assembled boards at RAL	01.03.04		22.03.04
25	Finalise design changes for FEDv2	01.04.04		25.03.04
26	Design Review FEDv2	18.06.04		04.06.04
27	FEDv2 tape-out	16.07.04		28.06.04
28	First FEDv2 boards at RAL	08.10.04		02.08.04
29	Dispatch calls for Tender	26.08.04		13.09.04
30	Sign Tender contract	09.02.05		24.06.05
31	FEDv3 tape-out	06.04.05		08.06.05
32	First FEDv3 boards at RAL	13.07.05		28.07.05
33	Production of 500 FEDv3 starts	08.09.05		01.08.05
34	First FEDv3 at B904 Prevessin	30.11.05		27.10.05
35	First FED installed at USC55	17.11.05		19.10.06
36	Last FED installed at USC55	26.07.06		20.07.07
37	Power on Tracker at USC55	01.08.06	01.07.07	
38	Readout test with Tracker at USC55	01.10.06	01.08.07	
39	LHC test run	02.04.07	01.11.07	