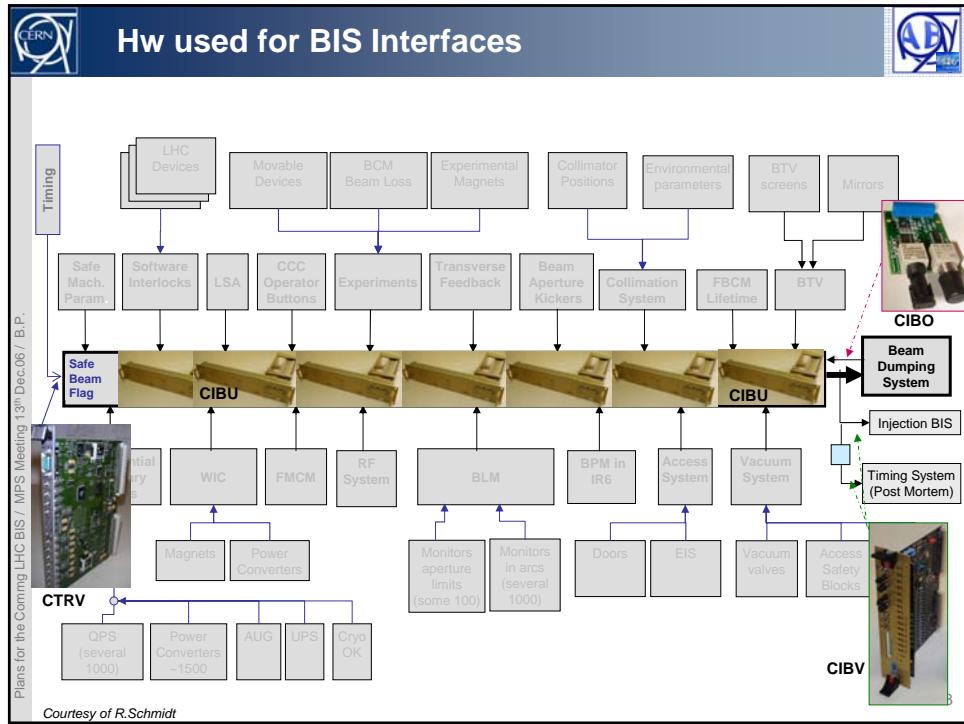


## Hw used for BIS Interfaces



## Distribution of the BIS Connections

This matrix diagram shows the distribution of BIS connections between various User Systems and the eight Interaction Regions (IR1 to IR8) and Central Control Room (CCR). The connections are color-coded (red, magenta, blue, grey) to indicate different types or levels of interconnection.

User System name	IR1	IR2	IR3	IR4	IR5	IR6	IR7	IR8	CCR	
Collimators	42	1 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2	
PIC	32	2 2 2 2 2 2 4	2 2 2 2 2 2 4	2 2 2 2 2 2 4	2 2 2 2 2 2 4	2 2 2 2 2 2 4	2 2 2 2 2 2 4	2 2 2 2 2 2 4	2 2 2 2 2 2 4	
Vacuum	32	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	
BLM	16	2	2	2	2	2	2	2	2	
FMCM	12	1		2	3		1	2	3	
WIC	8	1		1	1		1	1	1	
BTV	9		1 1	1 1	1 1		1 1	1 1	1	
MKD, MKI & MKQA	6						1	1	1	
RF system	4			1 1 1 1						
ATLAS / LCHf	5	3	1 2							
CMS / Totem	5		2				3	1 2		
ALICE	2								3	
LHCb	3									
Transverse feedback	2									
Beam life time	2				1 1					
Beam excursion	2				1 1			1 1		
Access system	1								1	
LHC Operator Buttons	2								1 1	
Software Interlock	2								1 1	
LSA	2								1 1	
Safe Machine Param.	2								1 1	
Nbr of connections:	191	24	26	18	23	24	23	17	27	9
	IR1	IR2	IR3	IR4	IR5	IR6	IR7	IR8	CCR	

Annotations include:

- Plans for the Coming LHC BIS / MPS Meeting 13th Dec'06 / B.P.**

## BIS Commissioning Plan

The BIS commissioning will be composed of several phases:

- 1) Controllers & Beam Permit Loops test
- 2) Individual System Test (User Interfaces)
- 3) Hw Test with all User Systems connected to the BIS  
("BIS Sequencer" is expected)
- 4) Additional check including the Beam Dumping System  
▲("double" arming sequence)

### Functional Test User Systems / BIS

- 5) Without beam
- 6) With beam

*Stand Alone*

June 2007 ?

Hw Commissioning

mid Oct 07

Cold Check out

5

## Reminder & Pending Questions

There will be also 4 other BIS to commission:

- TT60/Ti2 & (TT40/Ti8)
- INJ1 & INJ2

We have to be prepared if:

- Some User systems (NOT maskable ones) will NOT be ready on time.
- "BIS Sequencer" do not have full coverage of the BIS connections

On the MP point of view, what are the relevant ways to check the different connections *User systems => BIS* ?

Plans for the Coming LHC BIS / MPS Meeting 13<sup>th</sup> Dec.06 / B.P.

6