

# MICE CM33

## Critical schedule items



- *Schedule update*
- *Main schedule drivers*
- *Request from the MPB*

*Andy Nichols, STFC, 22/6/12*



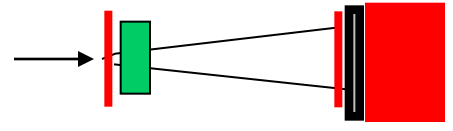


MICE SCHEDULE  
update February 2012 V1

As agreed and presented at  
CM32

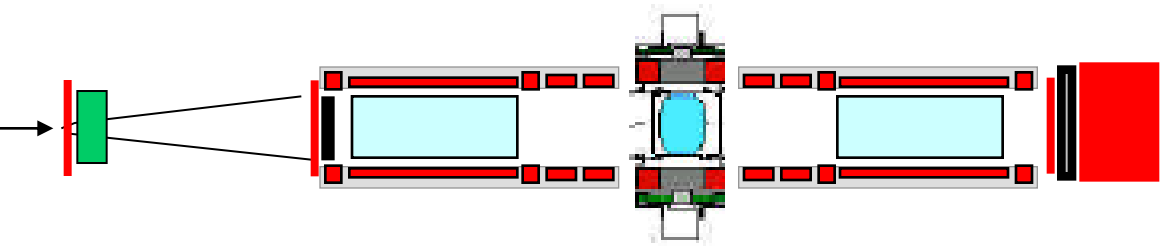
Run date 

$\mu$



STEP I

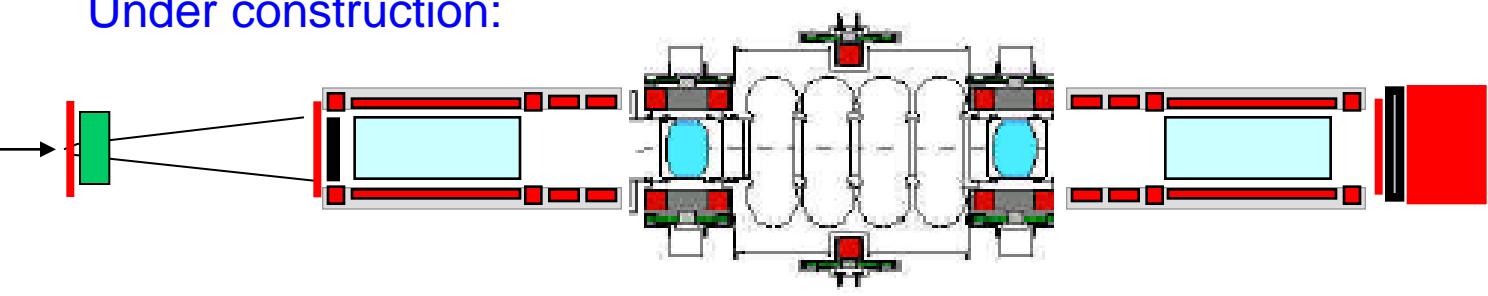
EMR run Q2 2012



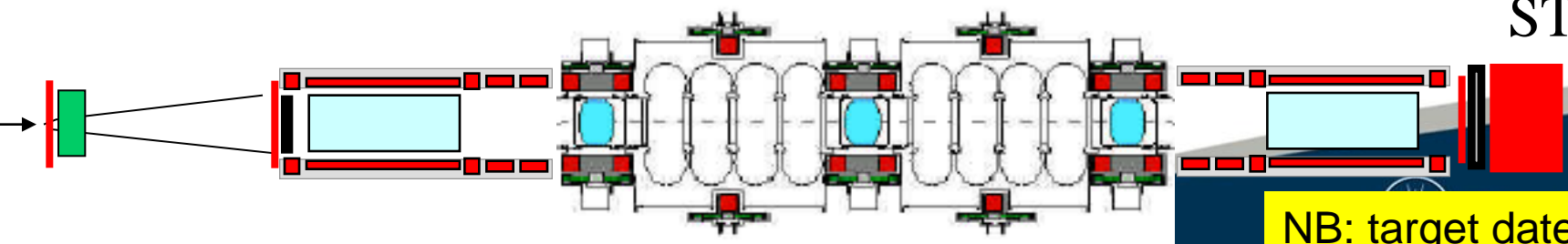
STEP IV

Q4 2012  
and 2013

Under construction:



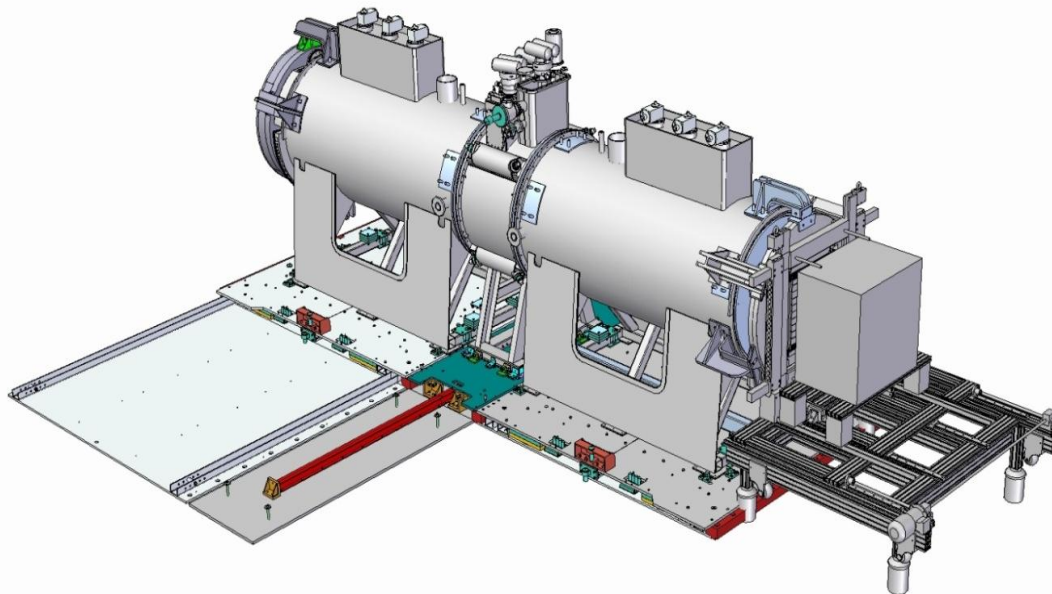
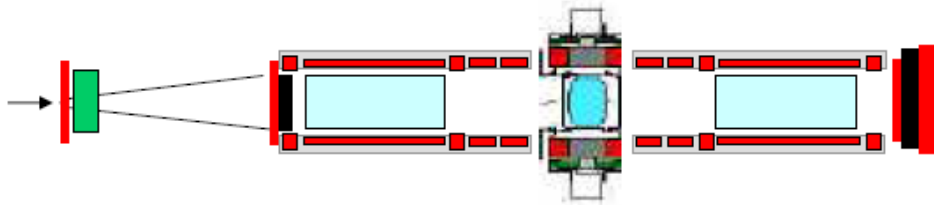
STEP V



STEP VI

NB: target date 2016

# STEP IV



Subsystem	Date
Spectrometer solenoid #1 + #2	Sept'12
Fibre tracker #1 + #2	Ready
Focus coil #1	Jul'12
LH <sub>2</sub> system A	Aug '12
Solid absorber(s)	June '12
Liquid absorber	Ready
Diffuser	Ready
Virostek plate & TOF cage assy	Ready
Substation upgrade	Ready
EMR installation	Nov'12
Radiation shutter	June '12
AFC Moving platform #1	Ready
SS platforms Installation	Ready

Step IV ready...Q2, 2013



## Schedule update

- *Estimated Step IV delivery date has slipped to Q2 2013, very simple to explain:*
  - *Delay with FC #1 – problems with radiation shield and other minor issues*
  - *Extended pump-down time for Spectrometer solenoid #1*
  - *But good news is that these problems are well understood and largely solved, both systems are well on the way, more later this week*
  - *EMR delivery has been delayed until Nov/Dec, 2012, due to change of fibre supplier – not on critical path this year*
  - *Liquid hydrogen R&D tests have slipped, more for administrative than technical reasons, also off critical path just now, again, more later*



## Key schedule drivers

- *The major subsystems appear to be well understood*
- *Magnetic shielding of local equipment is a major consideration for Step IV*
  - *Our baseline appears to be in tatters*
  - *ie, even if we accept that baseline, extensive and heavy additional shielding is required*
  - *But other options present themselves:*
    - *Retro-fitted partial return yokes – proposal in TB this week*
    - *Position everything at or near the West wall in R5.2*
    - *Make use of space behind North shield wall*
  - *Any of these options has a schedule and cost implication and we have to do one of them*
- *Also, mundane but important: the world shortage of LHe*
  - *Already affecting the spectrometer solenoid commissioning*
  - *And likely to affect the Focus Coil*

# Request from the MPB

- We have been asked for a resource loaded project plan for the whole of MICE, by **October 2012**
- Probably too ambitious, but need to do what we can
- Re-defined WBS, shown here, reflects evolution of the project
- **I need to get the WP Managers to help me with the plan this year**
- This is important, as it's first step to getting help with our overall manpower problem

Muon Ionisation Cooling Experiment: WBS				
MICE	Level 2	Level 3	Level 4	
	2.1-Project Management	2.1.1-UK Project management 2.1.2-Schedule coordination 2.1.3-Hall schedule 2.1.4-Hall Management		Nichols Grant Hanson Grant Greenall
	2.2-MICE-Muon-Beamline	2.2.1-Target  2.2.2-Decay-solenoid 2.2.3-Conventional magnets 2.2.4-Diffuser	2.2.1.1-Assembly 2.2.1.2-Stator 2.2.1.3-DAQ&Cntrl 2.2.1.4-Software	Long Hodgson Tarrant Barber Smith Hodgson Bayliss Nebrensky Blackmore
	2.3-MICE-Hall Engineering and infrastructure	2.3.1-Integration engineering 2.3.2-Virostek shielding 2.3.3-Services 2.3.4-Radiation shutter 2.3.5-Integration-of-Step-IV 2.3.6-Integration-of-Step-VI		Hayer Tarrant Hayer Nichols Hayer Hayer Virostek
	2.4-MICE-Detectors and instrumentation	2.4.1-TOF 2.4.2-cKOV 2.4.3-Tracker  2.4.4-EMR 2.4.5-KL 2.4.6-Luminosity monitor	2.4.3.1-Trigger-distribution  2.4.4.1-EMR Mechanics	Bess Bonesini Cremaldi Long MacWaters Asfandyarov Cadoux Tortora Soler Paseco Bradshaw Gourlay Virostek
	2.5-MICE-Magnet systems	2.5.1-Focus-coil-module  2.5.2-Coupling magnets  2.5.3-spectrometer solenoids		Watson Warburton Courtnold Ishimoto Snopok
	2.6-MICE Liquid hydrogen delivery system and absorbers	2.6.1-Control engineering 2.6.2-Cryogenic support 2.6.3-liquid hydrogen absorber 2.6.4-Solid absorbers		Li Moss DeMello Grant Corlett
	2.7-RF Systems	2.7.1-RF Power source 2.7.2-RF Cavities 2.7.3-RF Power distribution 2.7.4-Low level RF		Colling Rogers Nebrensky Macwaters Wilson
	2.8-Computing	2.8.1-Software 2.8.2-Grid 2.8.3-Networking 2.8.4-Computing support		Coney Coney Karadzhev Hanlet Macwaters
	2.9-Operations	2.9.1-Online reco. 2.9.2-DAQ/Trigger 2.9.3-Controls & Monitoring 2.9.4-MLCR		