



# MICE - spokesperson remarks

- Management issues
- schedule = magnet issues
- funding
- talks and publications

based on slides shown at the MICE FAC



From the MPB (23-9-2011) report (5-11-2011)  
received (9-12-2011)

## RECOMMENDATIONS

The context for the following summary recommendations can be found in the body of this report.

1. Study the possibility of using the existing helium refrigerator as a back-up, if there are more problems due to insufficient cooling with the cryo-coolers on the superconducting magnets. Report on the study at the next MPB meeting.
2. Proceed as rapidly as possible to test an RF cavity at prototypic MICE magnetic fields.
3. Consider a quantification of field-emitted electron fluxes and electron heat loads from an RF unit as part of the testing and commissioning plan.
4. Empower the Project Manager to work full-time, MICE-wide, with all WBS level 2 and 3 managers, to help ensure the timely arrival of their deliverables.
5. Perform a cost benefit analysis of skipping some of the MICE steps (eg II and III), for presentation at the next MPB meeting.
6. Deliver a re-baselined schedule for the MICE project by the end of December, 2010, with explicit deliverables and milestones, and including a “project completion” date. Present the high-level milestones, deliverables and schedule at the next MPB meeting.



# MICE Organization

~meetings/year in red

**Collaboration board** 3  
1 rep/institute  
elects spokesperson  
reviews EB activity  
votes on decisions  
prepared by EB and CF  
chair: Alan Bross (FNAL)

**Executive Board** 12  
spokesperson: A. Blondel  
deputy M. Zisman (LBNL)  
Project manager  
software coord.  
analysis coord.  
reps from  
UK, US, EU, JP  
manages collaboration life  
nominates personels  
reports to CB

**Technical Board** 12  
Project manager: A. Nichols (RAL)  
  
management of project  
and Common Fund  
reports to EB  
+spokesperson  
+deputy  
+software coord.  
+level 2 WBS coordinators  
enforces  
design and safety reviews  
change control  
documents exp. design

3 collaboration meetings/yr  
1 video conf/month

**Editorial board** ~3  
Maurizio Bonesini  
Controls quality of  
publications  
proposes publication policy

**Speakers bureau** ~3  
V. Palladino (INFN)  
solicits talks at  
conferences and  
proposes speakers

**Analysis forum** 24  
Chair J. Cobb (Oxford)



# Reinforcing Management

1. Secretary nominated for MICE Executive Board (Chris Tunnel)  
Minutes and actions operated using MICEmine (see demonstration)  
Minutes and agenda are public (including 'presence list' ☺ )  
they always were but now they \*really\* are  
Procedures for official MICE results made more systematic  
M. Bonesini (Milano) is new editorial board chair.
2. MICE Project Manager (Andy Nichols) is really taking up management of MICE project as a whole - great collaboration!  
examples:
  - redefinition of subsystem owners reporting  
skip level 2's to have reports directly by level 3's  
more reports, but smaller and closer to real action
  - MICO meeting will be made more efficient with secretary  
(A. Lintern)
  - went to China to visit Harbin HIT and Beijing Qi Huan
  - dedicated PM for UK will be sought
3. Long-recognized need for new overall magnet coordination  
'MICE-wide magnet group' will be led by Roy Preece and Mike Courthold
4. Schedule of MICE to be re-baselined at CM29 Feb 15-18



## Coupling coils

review took place in Mid december.  
First coil has been wound at Qi Huan →

Serious concerns about delays at HIT  
for testing cryostat.

milestones given in June 2010:

Complete winding of MuCool coil on mandrel

→ finished in december 2010 – not bad.

Complete testing of large test coil in ICST test facility

→ delayed till at least September 2011....

ICST 9/30/10

ICST 11/30/10



The next occasion: visit of Derun Li in February 2011.

At the same time, US team now investigating/developing a back-up plan  
for the construction/test/assembly of the coupling coils.



# FUNDING



**The MICE project is approved and funded for all partners (except Bulgaria)**

-- Funding is subject to proposals/approvals with finite duration  
in a number of cases

STFC approval/commitment to step VI but yearly review/attribution

DOE 5 years plan + yearly attribution

NSF: three year approval

CH: 2 years proposals

INFN review yearly

**main worry/difficulty across the project is shortage of manpower**

- magnet expertise
- control room experts
- scientific/analysis manpower

not helped by technical delays



## MICE MOU



Has been requested by several partners (in particular INFN)

M. Bonesini has drafted first version. Difficulty is to make an assessment of the value of the contributions. - unequal gauges!  
salaries or not, full cost including overheads or not etc.. etc...



There have been 7 MICE PhD theses so far

K. Walaron, R. Sandström, C. Rogers, A. Fish, H. Sakamoto, P. Smith, Y. Karadzhov

Several more in the pipeline

M. Rayner (Oxford), T. Carlisle (Oxford), C. Tunnel (Oxford), David Forrest (Glasgow)

A. Dobbs (Imperial), D. Adey (Warwick), M. Littlefield (Brunel)

V. Verguilov (UniGe), R. Asfandiyarov (UniGe),

Chris Heidt (UCRiverside)

**My Comment:** great brains in the US groups but only one PhD student?





# FINAL COMMENTS

MICE is a very challenging project, at the frontier between a particle physics experiment and an accelerator physics demonstrator

It is a key R&D towards neutrino factory and muon collider

We are making steady progress towards demonstration of Ionization Cooling

We are not going as fast as we want - but we are learning a lot!

Once MICE is built, equipped and completed, will remain competence and equipment for a **Muon Cooling Test Facility (M-CTF ☺)** - possibly for a next generation 6D cooling experiment

meanwhile MICE are young, working hard & ingeniously, having fun ... and we need more of those!