



Report on EUCARD WP6: MICE Transnational Access (TA)

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Brief introduction to MICE

- MICE = Muon Ionisation Cooling Experiment
- Key step for feasibility of neutrino factory and muon collider.
- MICE is sited at STFC's Rutherford Appleton Laboratory, and uses a specially developed secondary beam from the ISIS proton synchrotron (800 MeV).
- MICE is both a FACILITY:
 - Beam line plus basic infrastructure of monitoring and tracking
- and an EXPERIMENT:
 - Test of a particular cooling technique using ionisation loss and acceleration.
- MICE is an international collaboration of ~150 physicists and engineers from Bulgaria, China, Italy, Japan, Netherlands, Russia, Switzerland, UK, USA.
(<http://mice.iit.edu>)



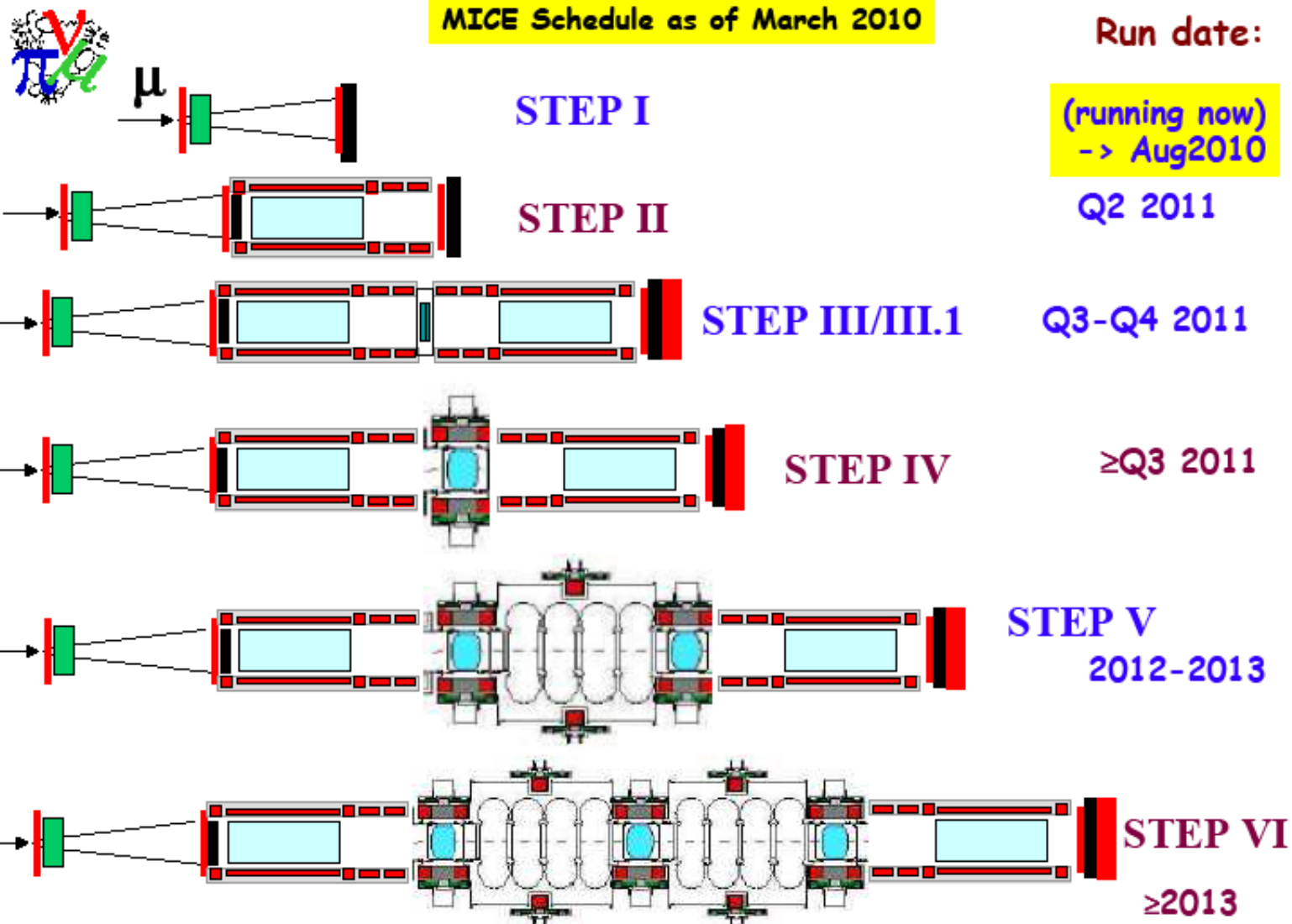
ISIS

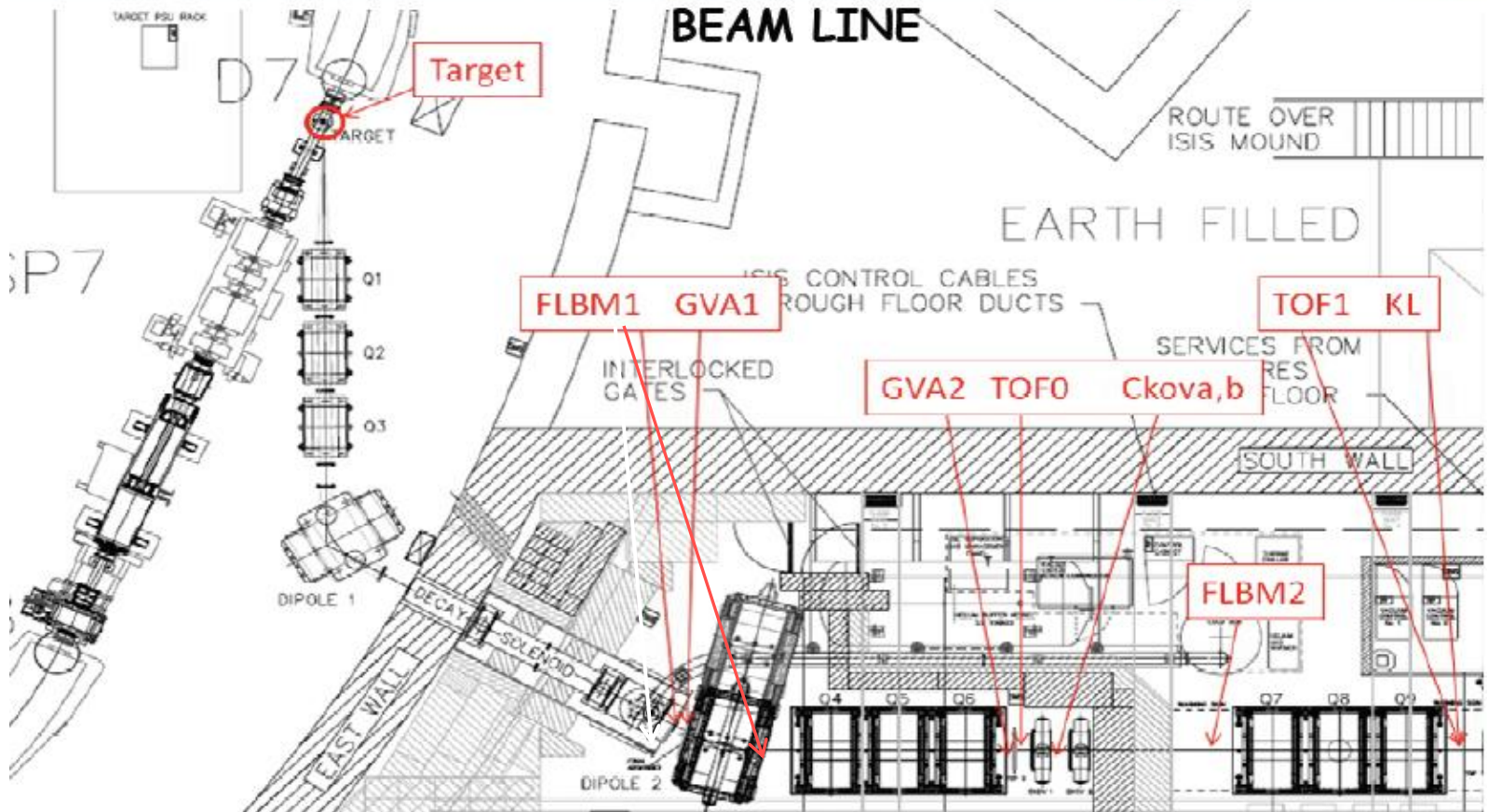
MICE Hall
R5.2



MICE Schedule as of March 2010

Run date:





EuCARD: MICE TA (WP6)

- Transnational Access (TA) to the MICE facility is obviously a good fit to the EuCARD aim of supporting the development of a European Research Area in accelerator science and strengthening collaboration among European partners.
- TA provides financial support for travel and subsistence for eligible researchers.
- The MICE TA award to STFC is 222k€ (Euro), of which 180k€ is to be used for funding TA directly and the rest is a contribution to the management and associated costs of the scheme.
- Scheme runs for 48 months starting 1 April 2009.
- TA funding is to be used:
 - to support detector commissioning, data-taking and analysis of the MICE experiment itself;
 - testing detectors using the MICE low-energy beam; and
 - development of new ideas for particle cooling.
- Thus the scheme supports access to the **facility**, and hence includes support for work on the MICE cooling **experiment**.

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- Application procedure is advertised on EuCARD web page: <http://eucard.web.cern.ch/eucard/activities/access/WP6/> and on STFC: <http://www.scitech.ac.uk/ResFac/LargeFac/contents.aspx> and on the MICE pages: <http://mice.iit.edu>
- Three applications (from groups in Como, Milano/Pavia/Roma, and Sofia) were received in summer 2009 and reviewed, with input from an independent expert, Prof. K.J. Peach (JAI, Oxford);
- Awards (to all three groups) were approved.
- After this first round, it was decided that the review process would be improved by setting up a small, dedicated group, fully independent of MICE, to carry out the reviewing.

EUCARD: MICE TA (WP6)

- A MICE TA Panel was set up at the end of 2009, with membership: *Steve Geer (FNAL)*, *Ken Peach (Oxford, Chair)*, *Francesco Terranova (INFN)*, plus technical and administrative input as required.
- Panel will make two calls per year.
- First call for 2010 has just been completed and led to one more award (to University Geneva group).
- A total of £40k plus 23k Euros has now been awarded, which is about a third of the total.
- Applications welcome!